European Science and Technology Highlights
National Science Foundation Europe-Eurasia Office
2011

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1 Europe

1.1 Research cooperation between the Nordic Council of Ministers and Estonia, Latvia and Lithuania

The Ministers of Education and Research of the Nordic states (Denmark, Finland, Iceland, Norway and Sweden and the Baltic states (Estonia, Latvia and Lithuania) met in Copenhagen on 8 November 2010 to discuss present and future co-operation in the fields of education and research.
The Nordic-Baltic research cooperation has over the last years developed in a positive and constructive way. The ambitions from all countries are now to further develop and enlarge the cooperation and build upon the experiences being made so far.
Source: January 2011
Full article available at:
http://www.norden.org/en/news-and-events/news/research-cooperation-between-the-nordic-council-of-minsters-and-estonia-latvia-and-lithuania

1.2 EU research and innovation funding – immediate changes to cut red tape for researchers and SMEs

Why is simplifying research funding important?
Research and Innovation are at the core of the EU's Europe 2020 strategy for growth and jobs as set out under the Innovation Union flagship initiative.
A pre-requisite for delivering the best results is that research programs are highly attractive and accessible to researchers, European industry and entrepreneurs, universities and other research and innovation actors.
This requires clarity of objectives and instruments, consistency and stability of rules, and lightness and speed of administrative procedures.
The improvement adopted will feed through into better research results, achieved more efficiently, and lead to new products and services that will create new sources of growth and jobs.
European Framework Programs invest large sums of money – well over €50 billion between 2007 and 2013 for the Seventh Framework Program alone - and it is very important, not least in a time of austerity, to get the best possible value for every euro spent.
Source: January 2011
More at:
http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/11/38&format=HTML&aged=0&language=EN&guiLanguage=en

1.3 Over 260 senior top scientists selected in the European Research Council's

In its latest prestigious competition for 'Advanced Grants', the European Research Council (ERC) is awarding some €590 million to 266 established research leaders. The grants, worth up to €3.5 million each, will allow them to pursue their innovative, 'blue sky' research throughout Europe. This is the third Advanced Grant call since the ERC was launched in 2007 as a flagship component of the EU's 7th Research Framework Program. The ERC promotes research at the frontiers of knowledge in all domains.
Source: January 2011
More at:
http://erc.europa.eu/pdf/Press_release_AdG2010_results.pdf

1.4 Innovation Gap Widens – Sweden and Denmark Top List

When it comes to innovation, the European Union still leads India and Russia, but Brazil is making steady progress and China is catching up quickly, according to latest figures released by the European Commission yesterday (1 February).
Sources: Euractiv web site - Published: February 2, 2011
Full article available at:

http://www.euractiv.com/en/innovation/innovation-gap-widens-sweden-denmark-rank-top-news-501816?utm_source=EurActiv+Newsletter&utm_campaign=dda87e421b-my_google_analytics_key&utm_medium=email

1.5 EU patent in the Balance at Summit

European leaders will discuss proposals for a single patent regime during a summit in Brussels on Friday (4 February), ahead of a crucial ruling by the European Court of Justice which may bring down the entire project.

Sources: Euractiv web site - Published: February 3, 2011
Full article available at:
http://www.euractiv.com/en/innovation/eu-patent-balance-summit-news-501848?utm_source=EurActiv+Newsletter&utm_campaign=dda87e421b-my_google_analytics_key&utm_medium=email

1.6 European Researchers Want Granting Agency to Stay a Granting Agency

A group of prominent European researchers today sent an open letter to the heads of all of Europe's research councils protesting against the winding up of the grant-giving activities of the European Science Foundation (ESF) so that it can be turned into a lobbying body. "How can ESF or its successor become the voice of science if scientists are no longer sustained by ESF? Scientists are the voice of science, and they will only accept ESF to speak on their behalf if they are strongly involved and feel supported by ESF," write the 16 signatories from eight European nations.

Source: March 2011
Full article available at:
http://news.sciencemag.org/scienceinsider/2011/04/scientists-dont-make-european.html?rss=1&sms_ss=facebook&at_xt=4d96d116f0764f35,0

1.7 New ERC Funding Initiative to Spur Innovation (Europe)

The European Research Council (ERC) launches a new funding initiative, the “Proof of Concept”, that will contribute to stimulating innovation. Funding of up to EUR 150 000 per grant is made available to researchers already holding ERC grants to bridge the gap between their research and the earliest stage of a marketable innovation. By supporting outstanding research projects at the frontiers of knowledge, the ERC – the newest component of the 7th Research Framework Programme - already feeds into the EU’s Innovation Union. This targeted new initiative will capture the maximum value from frontier research by getting good ideas to market.

Sources: April/May 2011
Full article available at:
http://erc.europa.eu/pdf/ERC_PR_Proof_of_Concept.pdf

1.8 Nordic-German-Polish Cluster Excellence Benchmark Project

The aim is to promote cluster management excellence and mutual learning by comparing cluster organizations and cluster support programs from Denmark, Finland, Germany, Poland, Iceland, Norway and Sweden in a benchmarking exercise.

Sources: April/May 2011
Full article available at:
http://en.fi.dk/innovation/nordic-german-polish-cluster-excellence-conference

1.9 European Projects - Structural Funds: Austria, Germany, Poland, and Hungary Joint Position

The Conference of Presidents of the Austrian Universities published on March 2011 a joint report with the presidents of universities from Germany, Poland and Hungary. The document proposes a common position for the future of European cohesion funds.

It raises the following points:
Coordination of EU funds
Structural Funds, the FP and the financing of innovation at European level must be better coordinated. A synergy is needed at the policy level on the one hand and the coordination of administrative procedures on the other (very different between programs).

Establishment of the knowledge triangle
Universities, as major players in the triangle of knowledge (in terms of education and training) wish to be involved as much as possible in innovation projects and research in conjunction with industry.

Application of the mechanism of co-financing
Universities recall that they depend heavily on national funding agencies or regional (public funds). They fear that only the largest institutions with strong financing capabilities have the opportunity to benefit from the Cohesion Fund.

Simplification
The universities want to see a simplification of the program, including harmonization of financial rules, which vary not only between different DGs of the European Commission but also between Member States and the regions.

Incentives for Innovation
The universities believe that the rules of competitiveness within the EU may hinder R&D (only highly specialized structures may participate in projects). They also find that their need for innovative research is not sufficiently taken into account at European level.

"Capacity building", excellence, evaluation
Universities want the implementation of measures of "capacity building" to allow less developed regions to participate to projects of scientific excellence, while promoting impartial decision-making and quality assurance projects.
Sources: April/May 2011
Electronic Bulletin, May 3, 2011

1.10 COST to Receive Additional €30 Million from European Commission

Brussels, Tuesday 3 May 2011 – COST (European Cooperation in Science and Technology) and the European Science Foundation (ESF) have been informed by the European Commission Directorate-General for Research & Innovation of their decision to allocate an additional 30 million euro to COST.
Sources: April/May 2011
Full article available at:
http://www.esf.org/media-centre/press-releases/ext-single-news.html?tx_ttnews%5Btt_news%5D=659&cHash=5a4229bafcb1e3a64e1f182e7d52dd83

1.11 US Nobel Laureate Awarded €2.51M European Research Council Grant

Nobel prize-winning economist James Heckman of the University of Chicago, has been awarded a €2.51 million five year grant by the European Research Council (ERC)

James Heckman will carry out his ERC-funded research on the origins and evolution of health inequalities at University College Dublin, Ireland, where he holds the title of professor of Science and Society. He will be supported by a team of seven researchers, including co-investigator George Davey Smith, professor of Clinical Epidemiology at Bristol University UK, and Director of the Avon Longitudinal Study of Parents and their Children, which is following the health and development of around 14,000 children born in 1991 and 1992.

The research will combine health, social and economic research, studying the origins and the evolution of health inequalities over the life of humans and across generations. This will bring the team to focus, for instance, on experiences and conditions during early childhood, such as family environment, wellbeing, cognitive ability, and their long-term effects on health.

The project will also explore policy implications for health prevention and remediation.
ERC President Professor Helga Nowotny said it is, “encouraging and exciting” for the ERC to number Heckman amongst its grant holders. “This most recent example of an American top researcher attracted by an ERC grant to work in Europe is further recognition of the attractiveness of the ERC.”

Heckman won his Nobel Prize in 2000 for his development of statistical methods for analyzing selective samples.
Sources: April/May 2011
European Research Council 12 May 2011
Science - Business reporting

1.12 New EU university rankings to challenge global league (Europe)

The European Commission will push ahead later this year with proposals to rank all of Europe's universities galvanized by a report highlighting the shortcomings of existing global league tables.
In a European University Association report on 'Global university rankings and their impact', published last week, 13 global ranking systems were scrutinized, including the high-profile Shanghai Academic and Times Higher Education lists.
Such rankings only cover around 3% of the world's universities (17,000) and the ratings reflect university research performance "far more accurately than teaching," because the indicators used to rank teaching are "all proxies, and their link to the quality of teaching is indirect at best," according to the report.
Source: June/July 2011
Full article available at:
http://www.euractiv.com/en/innovation-enterprise/new-eu-university-rankings-challenge-global-league-news-505851?utm_source=EurActiv+Newsletter&utm_campaign=d8c70d6adc-my_google_analytics_key&utm_medium=email

1.13 June ESF Governing Council update (Europe)

The most recent ESF Governing Council meeting took place in Lisbon on 22-23 June 2011. It was the first Governing Council meeting since the Special Assembly on 4 May, where no agreement was reached regarding a merger between ESF and the EUROHORCs. As you know, at the Special Assembly a vote was held on two options:
1) establishing a new organization in Brussels and winding down ESF by the end of 2015; or
2) transforming the current ESF based in Strasbourg and opening a new office for policy in Brussels.
Source: June/July 2011
Full article available at:
http://www.esf.org/about-esf/latest-developments-between-esf-eurohorcs.html

1.14 European Research Area re-launched, again

The European Commission will today launch "the largest ever European consultation on science and research" in its third major drive to create a European Research Area (ERA), more than a decade after the idea first surfaced in 2000.
Source: September 2011
Full article available at:
http://www.euractiv.com/innovation-enterprise/european-research-area-launched-news-507574?utm_source=EurActiv+Newsletter&utm_campaign=1814eeeb17-my_google_analytics_key&utm_medium=email

1.15 Research & innovation: Commission calls for partnerships to tackle societal challenges

European Commission - Press release

Brussels, 21 September 2011 – An invitation to public and private sectors to join forces at European level to apply research and innovation solutions to major challenges facing society has been issued by the European Commission today. The Commission Communication draws on first experience from pilot projects and outlines steps that will lead to more, and more effective, public-private and public-public partnerships. The Commission Communication suggests that when EU-level Partnerships are identified as necessary and useful, there is a need to make administrative arrangements simpler and more flexible. Bottlenecks and barriers to cross-border research need to be removed, and all partners, including EU Member States and the private sector, need to make long-term financial commitments to the projects.

Source: September 2011

Full article available at:

http://europa.eu/rapid/pressReleasesAction.do?reference=IP/11/1059&format=HTML&aged=0&language=FR&guiLanguage=en

1.16 The ERC awards over €670 million to 480 emerging research leaders

The European Research Council (ERC) is supporting some 480 early-career researchers over the coming five years with grants worth up to €2 million each. In this fourth 'ERC Starting Grant' competition, just over €670 million is allocated to top talent to carry out their pioneering research in any domain throughout Europe. The number of applications increased by 42% compared to last year. The projects selected cover a wide variety of topics: from studying the exceptional properties of biological nanomaterials to the health impact of exposure to traffic noise and the role of economic media in financial crises.

Source: September 2011

Full article is available at:

http://erc.europa.eu/sites/default/files/press_release/files/erc_pr_2011_results_stg2011.pdf

1.17 ERC is launching a new pilot initiative - the Synergy Grant

In recent years, small research groups of principal investigators and their teams have emerged as an increasingly productive link in the research chain. These groups often tackle interdisciplinary research problems, pooling together their expertise, knowledge and resources. Building on its two core funding schemes supporting individual researchers, the ERC is launching a new pilot initiative - the 'Synergy Grant ' - to fund small groups of excellent researchers to push forward the frontiers of knowledge.

Source: October 2011

Full article available at:

http://www.vr.se/inenglish/fromus/news/newsarchive/news2011/news2011/ercislaunchinganewpilotinitiativethesynergygrant.5.12276aba1326e7bd62a80003447.html

Additional source:

ERC web site: http://erc.europa.eu/funding-schemes/synergy-grants

1.18 European Commission Horizon 2020 Plan Released

The European Commission wants to spend €80 billion between 2014-2020 on three funding streams—excellent science, industrial leadership and societal challenges—the Horizon 2020 proposal has revealed. The proposal for Framework 7's successor includes three components, the priorities for which will be determined by scientists, industry and policy-makers, respectively, a Commission official said. Under this proposal, Horizon 2020 would spend €24.6bn on "excellent science". This includes €13.2bn for the European Research Council—a whopping 77 per cent increase on the previous period—and about €5.7bn for the Marie Curie programme for the mobility of researchers (a 21-per-cent increase).

A further €17.9bn would go to "industrial leadership", including €13.7bn to develop areas such as biotechnology, nanotechnology and space technologies; €3.5bn to improve access to risk finance; and €619 million for innovative SMEs. The third funding strand of the programme will spend €31.7bn on research related to six pre-defined "societal challenges" related to health; food and agriculture; energy;

transport; climate, resource efficiency and raw materials; and "inclusive, innovative and secure societies". This sub-programme is a natural successor to the cooperation part of Framework 7, a Commission official said. It will keep funding collaborative projects between researchers in different countries, the official explained.

Under the proposal, the Budapest-based European Institute of Innovation and Technology (EIT) would receive about €2.8bn for 2014-2020, up from €309m in 2008-2013. About half of this budget would be released subject to a review in 2017. In addition, the Commission has announced a set of simplified rules for participation, including the abolition of time sheets for staff who work full-time on an EU-funded project.

Horizon 2020 brings together several existing funding programmes: the Framework Programme, the Competitiveness and Innovation Programme, and the EIT. However, the directorates for research, enterprise and education remain responsible for each of these three sub-programmes, respectively. The proposal will now be examined and amended by the European Parliament and the Council of Ministers. An agreement should be reached by the end of 2013.

- **External links**
  - 'ERC success rewarded with funding boost proposal' - Research blog
  - Commission statement on Horizon 2020
  - Commission statement on EIT
  - Commission statement on SME programme

Source: November/December 2011
Tania Rabesandratana – Research Europe Today – 30 Nov 2011
See also http://www.nytimes.com/2011/12/01/business/global/europe-proposes-new-conditions-on-research-and-development.html

1.19 The European Science Foundation elects Pär Omling as new President at its Assembly; Martin Hynes appointed as new Chief Executive

The European Science Foundation (ESF) has today announced the names of its new President and Chief Executive, who will take up office on 1 January 2012. The ESF Assembly, attended by representatives of ESF Member Organisations, took place on 24 November in Strasbourg, France elected Pär Omling as new President and appointed Martin Hynes as new Chief Executive of ESF.

Martin Hynes FIEI, MBA, Executive Director of The Irish Research Council for Science, Engineering and Technology (IRCSET), will take over from Professor Marja Makarow, who has served as Chief Executive for the last four years. With a strong international profile and reputation, Hynes is experienced in policy formulation and has an excellent record of innovatively executing resulting policy decisions. He has been appointed for a three-year term.

Pär Omling, former Director General of the Swedish Research Council, will replace Ian Halliday who has served in the role of ESF President for the past six years. Omling has been deeply involved in national and international research policy for the last 20 years. In 2009, Omling played a key role in the Lund Declaration, which today is viewed as one of the cornerstones in the formation of the EU framework programmes on research and innovation.

Both Hynes and Omling have long associations with the ESF, with previous roles as Chair of the Finance and Audit Committee and as a member of the Physical and Engineering Sciences (PESC) Standing Committee, respectively. Both have also been members of the ESF Governing Council.

Commenting on being elected President of the ESF, Pär Omling said: "The world is rapidly changing, and so is the European research landscape. It is an exciting time to become President of the European Science Foundation and I'm looking forward to embracing this new challenge."

Newly appointed ESF Chief Executive Martin Hynes commented: “I am delighted and honoured to be selected as the Chief Executive of such an esteemed body. The values held by the European Science Foundation are very close to my heart, from research excellence and openness, to ethical awareness and a pan-European approach. I look forward to working closely with our members, staff and Science Europe to develop future plans for the organization.”

The European Science Foundation is an association of 78 Member Organisations devoted to scientific research across 30 European countries. The Assembly is the main ESF decision-making body and meets once a year. All Member Organisations are represented. The Assembly elects the President and Vice Presidents and appoints the Chief Executive, as well as ratifying ESF accounts, admitting new members and approving and/or amending the Statute. The Assembly also provides a venue for debate and interaction between Member Organisations.

The ESF President is elected every three years with an overarching responsibility to chair the Assembly and the Governing Council. The ESF Chief Executive is appointed to manage the office of the Foundation and is responsible to the Governing Council and work closely with the ESF President and Vice Presidents.
Source: November/December 2011
ESF web site, November 24, 2011

1.20 Update – November 2011 European Science Foundation Assembly

This year’s ESF Assembly held in Strasbourg, France, on Thursday 24 November included some new developments for ESF. A new President, Pär Omling, was elected to replace Ian Halliday, who had served as ESF’s President for the past six years. Omling is former Director General of the Swedish Research Council and has been deeply involved in national and international research policy for the last 20 years. In 2009, he played a key role in the Lund Declaration, which is viewed as one of the cornerstones in the formation of the next EU Framework Programme, Horizon 2020.

Moreover, Martin Hynes was appointed as the next Chief Executive of ESF. He will take over my position when my term finishes at the end of this year. Martin Hynes comes from The Irish Research Council for Science, Engineering and Technology (IRCSET) where he serves as Executive Director. With a strong international profile, Hynes is experienced in policy formulation and has an excellent record of innovatively executing policy decisions.

Both Hynes and Omling have long associations with the ESF, with previous roles as Chair of the Finance and Audit Committee and as a member of the Physical and Engineering Sciences (PESC) Standing Committee, respectively. Both have been members of the ESF Governing Council.

The Assembly also ratified a 25% reduction in Member Organizations’ contributions to the ESF General Budget for 2012. The reductions are targeted mainly as follows:

- 25% reduction in Standing Committees’ budgets
- Reduction in the number of Exploratory Workshop events by approximately 50%
- Savings in the General Budget support to Conferences
- Increase of internal overheads on running Research Networking Programmes
- Continuation of restructuring the ESF Office, further savings in running expenses, and a reduction in staff

At the Spring 2012 Governing Council Meeting, the ESF office will present a proposal for a multi-annual plan regarding ESF’s future. After it receives initial input from the Spring Governing Council, the plan will be further developed and presented at the Autumn Governing Council Meeting, for ratification by the Assembly in November 2012.

This year’s Assembly was preceded by an ESF Symposium entitled *“From scientists to science policy for science“*. The Symposium featured key researchers who debated the types of activities and instruments contributing to knowledge-generation, education, international networks and science policy from

complementary angles at the European level and beyond. The objective was to extract lessons that may help build a more robust European Research Area in the coming years. You can read more about the programme and the speakers here.

With this Symposium, I wished to acknowledge and celebrate the accomplishments and passion of the staff in supporting the portfolio of ESF's strategic and implementation activities over the last four years.

If you have any questions regarding this update or ESF developments, please do not hesitate to contact Shira Tabachnikoff, Head of ESF Communications.

As my mandate as ESF Chief Executive comes to an end, I take this opportunity to wish you all the very best for the future.

Marja Makarow, Chief Executive, European Science Foundation
Source: November/December 2011

2 Austria

2.1 Austria Searching for Inspiration

Austria has set an ambitious goal in terms of innovation, evidenced by the sharp increase in budgets and ongoing reorganization efforts during the last years. Reform of the innovation system has been widely debated in Austria, but there is a consensus on the necessity of continuing these reforms in a difficult financial environment. The discussion focuses on improving the efficiency of the Austrian system where funding is now considered very important (national expenditure in 2010 estimated at 2.73% of GNP), but there is a need to show results.

In this context, last October Dietmar Braun from the Institute of Political and International Studies, University of Lausanne was invited by the Viennese Fund for Research (WWTF) and the Austrian Platform of Reflection Assessment of Research and Technology (Plattform fteval) to make a presentation on the Swiss research system (Schweiz Die Conference - ein robust Forschungssystem) and on February 16, 2011, Dr. Wilhelm Krull (Germany) was invited to present at a meeting of the Austrian Academy of Sciences.

The German Example

Wilhelm Krull is the general secretary of the Volkswagen Foundation and former prominent member of the Max Planck Society and the German Science Council (Wissenschaftsrat). He also serves many functions in various national, international and foreign councils. During one hour, Wilhelm Krull was able to explain in detail the German R&D process, highlighting its strengths and weaknesses and its evolution. His presentation emphasized essential nature of cooperation between universities and non-academic organizations, the establishment of a culture of creativity, attractiveness abroad, the autonomy of research institutions, adequate funding and effective, dynamic governance which is especially important in a federal system such as Germany's.

Professor Helga Nowotny, Chair of the ERC

The conference was followed by a short speech from the President of the European Research Council, Professor Helga Nowotny. Ms. Nowotny recalled that one of the important lessons from the analysis of results of the ERC calls is the success of English and Swiss teams, which she attributed to the high degree of internationalization of their scientific communities and the attractiveness of these two countries (a high percentage of the ERC projects in these two countries are awards to foreign researchers). Another lesson is that women researchers account for only 26% of the ERC "Starting Grants" and only 9.4% the "Advanced Grants".

The general discussion put Austrian research into perspective, compared to both the German approach and that of other European countries. Overall, Austrian participants were quite impressed. Despite a

history of Austro-German cooperation and a shared language, the differences in scale and organization of the research activities make direct comparisons misleading. A very detailed presentation on the national system of higher education and research is available in German at:
http://www.fteval.at/cms/assets/files/eventuploads/Krull.pdf
Source: March 2011
Electronic Bulletin, March 1, 2011

2.2 Austrian Science Talk 2011

On September 10, 2011, the annual Austrian Science Talk will take place again, this time in New York City at the New York Academy of Sciences. The Austrian Science Talk offers Austrian scientists and researchers in North America a unique opportunity to learn about recent R&D policy developments in Austria and Europe. The conference also provides information about various career and funding opportunities, or how to facilitate research collaborations between the two continents. Every year the Science Talk attracts about 100 Austrian researchers and scientists from all disciplines and corners of North America, thus providing an ideal platform for discussion, interaction, and networking with peers.

The motto of the Austrian Science Talk 2011: Austria - On Its Way to Becoming an Innovation Leader?

In the past few years, Austria has demonstrated an impressive talent for catching up in terms of its performance in research, development, and innovation. Austria's R&D quota has increased in the past ten years from 1.94 percent to 2.79 percent of the GDP, which propels the country into the ranks of Europe's top performers in innovation. Now Austria's innovation system faces the challenge of joining the ranks of innovation leaders by 2020.

Experts from the Austrian government, universities, research institutes, and industry will discuss with scientists attending the Austrian Science Talk how Austria can best utilize its potential in the fields of human capital, basic research, venture capital markets, etc. in order to take the vital step towards becoming an *innovation leader*, and to overcome future social and economical challenges.

Austrian Science Talk 2011:
Austria - On Its Way to Becoming an Innovation Leader?

Strengthening the cooperation between science and industry is an important element in achieving this goal. For the first time, as a result of a cooperation with the Austrian Trade Commission in the United States, executives of Austrian subsidiaries in the United States and Austrian scientists based in North America will be brought together the evening preceding the AST. The networking event *Austria Connects Business and Academia* will take place at the Neue Gallerie in New York.

Also, in an award ceremony following the Austrian Science Talk on the evening of Saturday, September 10, Secretary General Friedrich Faulhammer and ASciNA -President Peter Nagele will hand out the ASciNA Awards 2011, sponsored by the Austrian Federal Ministry for Science and Research.
Source: September 2011
Full article available at:
http://www.ostina.org/content/view/5722/1519/

2.3 FFG 2011: for an efficient innovation system

The Austrian National Agency for Support of Applied Research (FFG, Forschungsförderungsgesellschaft) held its annual forum on September 14, 2011 in Vienna. The annual forum is an opportunity to examine the Austrian innovation system and its future by bringing together researchers, managers and decision makers.

Forum content
With some 600 participants and 40 speakers, strategies and practical measures that can be set up in Austria to catch up with Europe's leading innovation were addressed at the forum. The better use of resources through appropriate support and structures was found to be unanimously and particularly important. Now, according to Peter Mitterbauer, Chairman of the Supervisory Board of the FFG, the institution has the tools to meet these challenges.

The Federal Ministers of Economy, Reinhold Mitterlehner, and Infrastructure, Doris Bures, stressed the importance of an enabling environment for science and industry, insisting on the success of the previous decade: indeed, few countries were able to compete with the efforts of Austria to intensify R&D with expenditures representing 2.76% of GDP in 2009 - a figure increasing over the past ten years. The goal is to reach 3.76% by 2020. However, not only a quantitative improvement was made but also a qualitative one: in the field of research funding, for example, the system of funding by research area has been replaced by more targeted support, which is deemed to be more efficient.

The quality of cooperation between science and industry is seen as a key success factor in the innovation process. For example, some panelists felt that in many cases, the missing factor was not the quality of research but the successful implementation of applications in the business world. Increased efforts in cooperation projects, within the centers of excellence (notably the COMET [1] program), and measures to create start-ups and for technology transfer have been decisive.

Various discussions were held on the following themes: "The added value of research support", "European Research Area: Where does the European journey lead?", "Mastering the social challenges", "Research as a driving force towards business success" Among the participants were personalities from industry, such as the president of Microsoft Austria; from the economic world, such as the President of the Austrian National Bank; and from the academic world, such as Anton Zeilinger, a physicist of world renown.
Sources: October 2011
Electronic Bulletin, October 24, 2011
*- [1] Program COMET: **http://www.ffg.at/comet-competence-centers-excellent-technologies***
*- Contact: Mag. Gerlinde Tuscher, **gerlinde.tuscher@ffg.at***

3 Belgium

3.1 Competitiveness Clusters - Launch of the 6th Walloon Cluster “Greenwin”

It's official! Greenwin is recognized as the sixth competitiveness cluster by the Walloon Government (the southern French-speaking region of Belgium). For over a year, 870 people participated in the definition of Greenwin strategy, drafting the application and designing the R&D or the training. Greenwin focuses on the life cycle of materials and aims to reduce our environmental footprint through technological development and innovation.

Greenwin meets a real need--6 research projects and 4 training projects were approved by the Government at the same time as the cluster. Greenwin has issued a second call for projects and some 18 applications are under consideration for the June 2011 submission, when the next session of the Board of the Walloon Government will take place.

This recognition rewards an intense year of reflection and work on the joint initiative of several industrial companies (1), the Confederation of Walloon Construction and Federation of Chemical and Life Sciences, with the continued support of university academies Wallonia-Brussels and Wallonia-Europe Leuven otherwise known as all French universities and research centers approved gathered in the Wallonia Agreement.

More broadly, it is 870 people from 190 companies (115 SMEs) and 200 university departments or

research centers that participated in the definition of the cluster strategy, the draft of the application and R&D development or training project.

The Greenwin cluster focuses on the life cycle of materials and it aims to reduce our environmental footprint through technological development and innovation in the following areas:

- Development of more sustainable products and materials, that is to say, those derived from renewable or recycled raw materials, which are stronger, more efficient and nontoxic for use and, at the end of economic life, biodegradable, compostable or recyclable;
- Integration and implementation of sustainable materials in components and systems that serve their own environmental objectives, such as energy storage systems or structures with high environmental performance, zero energy buildings, etc.
- Treatment and recovery – primarily materials, but energy by default – waste and effluents, with a final objective of zero waste through the whole economic process, from manufacturing products and materials to the ultimate dismantling of components and systems.

"The cluster strategy is central to the objectives of the Marshall Plan 2.Vert," said its President Jean-François Heris:

- The economic sustainability of Wallonia and development of employment go through the maintenance of a basic industrial production;
- That heavy industrial enterprises cannot remain in Wallonia without a permanent process of innovation, in partnership with universities and research centers;
- And that innovation must now fully integrate the environmental component in all its dimensions.

The official recognition Greenwin (February) will allow members to access specific funding from the Marshall Plan 2.Vert.

Sources: April/May 2011
Electronic Bulletin, May 3, 2011
Alain Lesage - email: alain-lesage@skynet.be - Phone: +32.(0)4.96 40 51 03
(1) AGC GLASS EUROPE, ARCELORMITTAL, CARMEUSE, BASF, CFE, GALACTIC, HOLCIM, KNAUF, BLAVIER, PRAYON, RECOVAL, RONVEAUX, SHANKS, SITA and SOLVAY

3.2 Free University of Brussels partners with UNICA to create a Green Academic Footprint Network

The Free University of Brussels (ULB), through its Environmental Coordination office, is actively involved in the creation of a "green" network within UNICA (1), the European network that links universities in national capitals in Europe. The main purpose of creating this "green" network of exchanges is to increase the consideration of environmental commitments that universities need to take for education and research as the operational management of a campus.

The project is currently in its initial phase and the ULB, alongside the Universities of Oslo, Lausanne, Talinnin and Lisbon, is part of the working group's development and its implementation. A first step has been reached last week by the approval by the UNICA General Assembly of the proposed environmental policy “Unica Academic Green Footprint”.

Source: November/December 2011
Electronic Bulletin, December 1, 2011
Nathalie Gobbe - ngobbe@ulb.ac.be - Phone: +32 (0)71 60 02 06 - 32 (0)474 84 23 02
(1) UNICA web site - http://www.unica-network.eu/

4 Croatia

4.1 Minister Fuchs' Meeting with European Commissioner for Science Results in Full Support for Croatian Efforts Related to the Science System Reform

Minister Radovan Fuchs and Máire Geoghegan-Quinn, European Commissioner for Research, Innovation and Science met in Brussels on 24 January 2011. Their first official meeting provided the opportunity to

discuss the following topics: scientific and research priorities of the European Union in this decade, the current status of development of the science system in Croatia and efforts put into harmonizing it with the objectives of the EU's Europe 2020 Strategy.
Source: January 26, 2011
Full article available at
http://public.mzos.hr/Default.aspx?art=10654&sec=2428

4.2 Croatia to draw up National report on referencing the Croatian Qualifications Framework (CQF) to the European Qualifications Framework (EQF) and the qualifications framework of the European higher education area

The Ministry of Science, Education and Sports organized on 31 January 2011 the initial meeting of the local and international experts in the field of developing national qualifications frameworks for the purpose of drawing up a Referencing Report.
Source: February 1, 2011
Full article available at:
http://public.mzos.hr/Default.aspx?art=10663&sec=2428

5 Denmark

5.1 New Research Centers for Excellence in Denmark

The Danish National Research Foundation has launched an annual call for applications for the creation of new research centers of excellence. This year, 585 million DKK (78.5 million Euros) was invested in the creation of 11 new centers.

Among the winners, Charles Marcus, currently a professor at Harvard University and renowned researcher in the field of nanophysics received a grant of 61 million DKK (8.2 million Euros) that will be used to open the Center for Quantum Devices at the University of Copenhagen.

More than 20 research positions, doctoral and postdoctoral students will be created on the occasion of the opening of the center. The research will focus in particular on quantum electronics. This will include the development of semiconductor nano-wires, carbon nano-tubes and superconducting systems. The experiments will focus particularly on the development of nano-electronic devices made from these materials and the development of new measurement methods. The new laboratory will conduct some experiments at temperatures near absolute zero, -273 Celsius degrees. The center will also cover the exploration of quantum electronics.

Professor Bo Barker Jørgensen has been allocated a fund of 59 million DKK for the opening of a new Center for Geomicrobiology at the University of Aarhus. The professor and his team are studying the interactions between biosphere and geosphere in the ocean depths, the largest known ecosystem where large communities of micro-organisms have been discovered.

The Center for Geomicrobiology develops new methods to understand these micro-organisms and their role in the overall metabolism of the ocean floor. These microorganisms have had a major impact on the chemical composition of the oceans and the atmosphere of the planet. However, this part of the biosphere is an unexplored world where almost all micro-organisms remain unknown until now and only identified by a tiny fraction of their genetic code.

The center will link studies on the identity and activity of these micro-organisms with the study of geo-biochemical processes. To understand how the energy requirements of these micro-organisms are satisfied in both energy-rich environments close to the surface as well as in the energy-poor depths, the center's researchers will study the interactions at sediment-water interfaces and between different layers of sediment. The attention paid to these environments is motivated by the discovery of extra-cellular electron transfer in some species.

The experiments combine biophysics, microbiology and biogeochemistry of extra cellular electron transfer and, among other things, aim to understand which organisms exchange electrons and how such conducting network complex is organized. One of the objectives that the professor has set is to be able to analyze the genetic diversity and metabolism of bacteria and archaea present in these environments without having to first grow them in laboratory.

This research will therefore be an example of interdisciplinary approach to marine geomicrobiology and the results could pose a new basis for the understanding of microbial metabolism and biogeochemistry governing the marine environment. Such methods could also be used in other areas such as biotechnology and medical microbiology. Research in bio-geo-electricity opens up new prospects for control of microbial processes such as mineral transformation, corrosion, or the construction of bacteria-powered batteries.
Source: November/December 2011
Electronic Bulletin, November 10, 2011
For more information: Professor Bo Barker Jørgensen - email: bo.barker@biology.au.dk
http://www.dg.dk/filer/pressemeddelelser_fonden/pm_7_application_round2011.pdf
Danish National Research Foundation: http://www.dg.dk/en/
Center for Nano-science – University of Copenhagen: http://nano.ku.dk/english/

6 Finland

6.1 Finland Focuses on SME for Innovation

Small and medium-sized enterprises aiming at growth and internationalization and Strategic Centers for Science, Technology and Innovation received an even larger share of Tekes funding in 2010. Tekes invested EUR 233 million in SME projects and nearly EUR 100 million in the Strategic Centers for Science, Technology and Innovation.
Source: February 2011
Full article available at:
http://www.tekes.fi/en/community/News/482/News/1344?name=Tekes+funding+focused+on+SMEs+and+strategic+research

6.2 Academy Funding Increasing (Finland)

In 2010, the total value of Academy of Finland funding decisions came to EUR 324 million, up a strong 7 per cent from 2009, when the disposable funding stood at EUR 304.2 million. The value of all applications received by the Academy in 2010 was EUR 1.4 billion, compared to EUR 1.6 billion in 2009. Funding could only be granted to applications that received the highest ratings in peer reviews.
Sources: April/May 2011
Published on March 31, 2011
Full article available at:
http://www.aka.fi/en-GB/A/Academy-of-Finland/Media-services/Releases1/Academy-funding-continued-to-increase/

6.3 Helping SMEs to find their place in global value networks - Tekes (Finland)

Ideas, competence, products, services and other production factors move between countries and organisations establishing increasingly complex networks. The ability to become part of these global value networks is a precondition for growth.

The number one market for Finland remains in Europe. More than 70 per cent of export goes to other European countries. Despite the recent focus on China, 4 per cent of the total value of Finnish foreign trade consists of export

to China. Measured in these terms, the US, for example, still remains a more significant trading partner.

Source: September 2011
Full article available at:
http://www.tekes.fi/en/community/Monthly_columns/664/Monthly_column/1590?name=Helping+SMEs+to+find+their+place+in+global+value+networks

6.4 WEF ranks Finland as the fourth most competitive nation

According to a report by World Economic Forum (WEF), Finland is the fourth most competitive nation in the world. Last year Finland was ranked seventh. WEF also ranks Finland as one of the innovation powerhouses in Europe.
The top three in the competitiveness survey by the World Economic Forum once again consisted of Switzerland, Singapore and Sweden. Finland was followed by the United States, Germany, the Netherlands and Denmark. The ranking was performed on a total of 142 economies.
Source: September 2011
Full article available at:
http://www.tekes.fi/en/community/News/482/News/1344?name=WEF+ranks+Finland+as+the+fourth+most+competitive+nation

Additional information available at:
Global Competitiveness Report at http://www.weforum.org/reports/global-competitiveness-report-2011-2012

6.5 Finland and USA strengthen co-operation in wireless communication

Tekes, the Finnish Funding Agency for Technology and Innovation, the Academy of Finland and the USA's National Science Foundation (NSF) have agreed on the foundation of a virtual institute aimed at solving mobile data transmission problems and developing competence and innovations.
Source: October 2011
Full article available at:
http://www.tekes.fi/en/community/News/482/News/1344?name=Finland+and+USA+strengthen+co-operation+in+wireless+communication

7 France

7.1 French University Autonomy Classification Reaches 90%

Valerie Pécresse recently announced the list of 22 universities receiving financial independence effective January 1st, 2011. In total, 73 universities, about 90% of France's total, will qualify for autonomous status nearly two years before the deadline set by law.

The 22 universities are as follows:
Amiens, Arras, Bordeaux 3, Bordeaux 4, Caen, Chambéry, Evry, Grenoble 2, Le Havre, Le Mans, Lille 1, Nancy 2, Nîmes, New Caledonia, Orléans, Paris 1, Paris 3, Paris 4, Paris 9, Reims, Rouen, Toulouse 2.

An additional 8 Institutions of Higher Education (IHE) are also now independent: Ecole normale supérieure de Cachan, Ecole nationale supérieure d'ingénieurs de Bourges, Ecole nationale supérieure de Chimie de Montpellier, Ecole centrale de Nantes, Ecole centrale de Paris, Ecole nationale d'ingénieurs de Tarbes, Institut national des sciences appliquées de Rouen, Chimie Paris Tech.

The Ministry of Higher Education and Research has published a booklet entitled "*The benefits of the autonomy of universities*" outlining the impact of the change for students, staff, and researchers, providing past examples of university autonomy and testimonials.

The law requires that all French universities become financially independent by 2012. Eighteen universities have been autonomous since January 2009, 33 others have gained independence on January 1st, 2010, and another 22 will become independent on January 1st, 201. Nearly 1,311,800 students will be affected by this change. The 73 autonomous universities represent nearly 124,000 jobs and a payroll of nearly € 7 billion.*
*(*Temporary figures*)

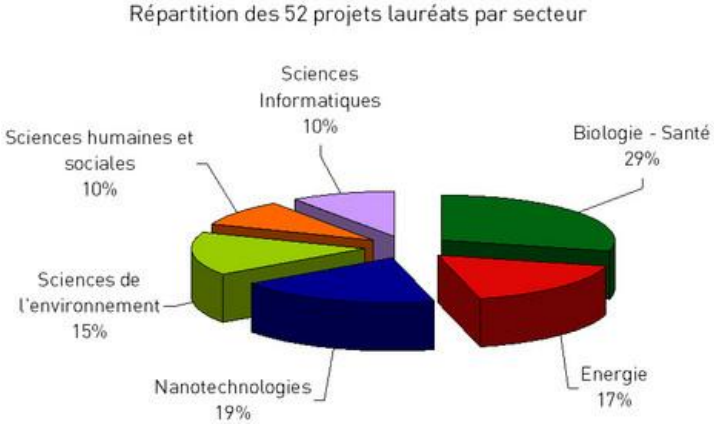
Press Release - Valérie Pécresse
December 29, 2010

Source; January 2011
Full article available at:
http://www.enseignementsup-recherche.gouv.fr/cid54356/autonomie-an-iii-90-des-universites-autonomes-au-1er-janvier-2011.html

7.2 France Commits 340 Million Euros to Upgrade Lab Equipment

Valerie Pécresse, Minister of Higher Education and Research, and René Ricol, General Commissioner for Investment, announced 52 winning projects in the first wave of projects entitled "Equipment for Excellence." Totaling one billion Euros, this call for proposals will allow French laboratories to acquire the advanced scientific equipment necessary to perform world class research that will expand the growth of knowledge and innovation.

A total of 336 proposals were received from the first call in June 2010, and on the basis of assessments and recommendations from an international peer review committee chaired by Phillip Priest, professor and director of the Institute Hydro-Quebec (Canada), 52 projects were selected for funding.



340 M € are allocated to the winners with 260 M € available for the immediate purchase of equipment needed for the successful projects ranging from small (1-5 million €) to large (over 12 million €). The remaining 80 M € will be used for maintenance and operation costs for the next 10 years.

The 52 projects selected represent the following areas of research: 10% in computer sciences, 10% in humanities and social sciences, 15% in environmental sciences, 17% in the energy field, 19 % in

nanotechnology, and 29% in biology and health.

Examples of research programs supported include:
• mathematics and modeling, where more computing power is required as is the case of "EQUIP @ MESO" which will allow the establishment of a network of computers constituting the regional infrastructure for high performance computing;
• libraries and digital databases required for the humanities and social sciences such as the platform "DIME-SHS" for the collection and dissemination of social data;
• physical sciences, in which the "ROCK" and "Socrates" projects will develop, respectively, new materials and new ways to capture solar energy;
• environmental science with projects such as "IAOOS" which aims to better understand climate change through the measurement of characteristics of the ocean and atmosphere;
• life sciences, which include the 'IVTV' project on cell aging, and "FIGURES," whose objective is to develop innovative methods of facial surgery;
• computer sciences and communication with the project “FDSOI11," which will develop a new generation of electronic components.

These projects vary in nature from open platforms to networking and cooperative projects, but all will benefit researchers across the country beyond the specific location of the equipment and industrial base via partnerships between public and business research laboratories.

Finally, Valerie Pécresse and René Ricol note their desire that these state grants will be complemented by co-financing from local and private partners.
Source: January 2011
Communiqué - Valérie Pécresse
January 20, 2011

7.3 Collaboration AERES - ANECA (France)

In 2010, AERES (the French agency responsible for evaluating research and higher education activities) was renewed as a full member of the ENQA (European Association for Quality Assurance in Higher Education) as a result of an external evaluation conducted by the ANECA (Agencia Nacional de Evaluación de la Calidad y acreditación) on behalf of the association.
To extend this experience and their relationship, AERES and ANECA exchanged on the following topics during a recent visit to Paris by the Spanish agency:

• the external evaluation of AERES was notable for the quality of the experts appointed by the ANECA;
• the procedures set in place by both agencies in their evaluation campaigns;
• the direct responsibility of the ANECA in evaluating teacher-researchers in Spanish universities and the methods employed;
• the collaboration of both agencies beyond their borders, bringing their expertise in doctoral programs (formation evaluation) in the Mediterranean countries and/or Latin America countries in the first place.

This first discussion reflects the close and lasting collaboration between the two agencies, particularly the international aspects, to promote the European experience related to the Bologna process.
Source: February 2011
http://www.aeres-evaluation.fr/Actualites/Actualites-de-l-agence/Collaboration-AERES-ANECA

7.4 CNRS opens three new offices abroad: India, Malta and South Africa (France)

On February 1st, 2011, the CNRS office opened in New Delhi which will strengthen its already strong cooperation with India and support the creation of new structures for joint research. In Malta, a CNRS office will open on March 1st, 2011 promoting cooperation among scientists from all Mediterranean countries. In Pretoria, the common office CNRS and IRD, opened January 10th, 2011, will extend the ongoing activities of the CNRS in Johannesburg.
Source: February 2011

Full article available at:
http://www2.cnrs.fr/presse/communique/2099.htm

7.5 The University of Rennes Wins Univ-Link Seal of Excellence (France)

On the occasion of a trip to the United States, Valérie Pécresse, Minister of Higher Education and Research, announced that the University of Rennes I was the winner of the Seal of Excellence in academic cooperation between France and American Univ-link for 2011.

Started by Valérie Pécresse in June 2010 during a trip to Washington and given for the first time this year, this award is funded by the French Ministry in the amount of € 40,000 (~$56,000) and aims to encourage lasting, structured, and thorough relationships between French and American universities.

Valérie Pécresse stressed that the proposed project by the University of Rennes 1, in cooperation with the University of Arizona, is an ambitious project that focuses on advanced materials for energy and optics and meets three dimensions: student mobility, joint degrees, and joint research projects. The minister said that this partnership stood out thanks to extensive cooperation in the conduct of co-supervised theses, regular exchanges of students and post docs, and the importance of co-publications. The Minister particularly welcomed the proposed creation of a mixed international response to strengthen and organize joint research.

The University of Rennes 1 already benefits from the program PUF (Partner University Fund) along with the University of Lille 1 and the National School of Engineering of Caen, which results in the establishment of three jointly supervised doctorates with the University of Arizona (dual PhD). A total of 40 students will benefit from the exchanges provided between institutions in these 3 programs.
Sources: April/May 2011
The University of Rennes 1 winner Seal of Excellence Univ-Link
Press release - Valérie Pécresse
April 11, 2011

7.6 €300 million for 34 Carnot Institutes (France)

Valerie Pécresse released the names of 34 research laboratories retained after the call for nominations of the Carnot 2 Institutes that will be allocated about 60 million Euros per year.

The amount will be adjusted according to the revenues realized by the Carnot Institutes selected.

These institutes facilitate bringing together key actors from public research and socio-economic development, particularly in order to streamline and expedite the transition from research to innovation and technology transfer.

These 34 institutes include 10 new laboratories accredited for a period of 5 years compared to 4 years for the first wave started in 2006. The Carnot 2 shows the evaluation of the first 33 Institutes covering new themes (humanities and social sciences, health, etc.) in conjunction with the national strategy for research and innovation.

The new institutes are widely distributed across France and involve almost 25,000 researchers. They

represent a consolidated research budget of 1.9 billion Euros and around 350 million Euros of revenue from partnerships, of which 60 million Euros is from SMEs.

The Minister noted that this device will be consolidated with a call for projects of 500 million Euros in the "Investment for the Future" framework, which is reserved for newly accredited Institutes. These additional resources will enable them to strengthen their links with SMEs and internationally.

Carnot Institutes

The Carnot label is a seal of excellence awarded by the Ministry of Higher Education and Research to research institutions in France. Given initially for four years, it is intended to foster research partnerships, that is to say the conduct of research by public laboratories in partnership with local socio-economic business. They are inspired from the German Fraunhofer Institutes.

Institutions labeled (called Carnot Institutes) receive funding (from the ANR – Agence National de la Recherche), calculated according to the volume of revenues from research contracts with their partners, including businesses. The institutes are federated within the Carnot network.

During the first phase of the Carnot launched in 2006, 33 institutes representing 17,000 researchers with an annual budget of 1,500 million Euro and 230 million Euros of revenue from private companies have received annual support of about 60 million Euros based on their performance. The recent evaluation of the project has demonstrated its effectiveness with remarkable results: revenues from contract research network of Carnot Institutes rose over 30% in 4 years.

Sources: April/May 2011

Press Release Valérie Pécresse, April 28, 2011

http://www.enseignementsup-recherche.gouv.fr/cid55917/300-millions-d-euros-pour-les-34-instituts-carnot-2.html

7.7 EQAR: AERES European recognition (France)

AERES [French agency responsible for evaluating research and higher education] received certification from the EQAR (European Quality Assurance Register for Higher Education) less than 5 years after its creation. The European Register Committee decided at its May 13 meeting to include AERES reporting agencies and quality assurance in higher education. AERES is now recognized throughout Europe by the official institution established in London in 2007 by the Ministers of Higher Education of the member countries of the Bologna process.

After reviewing the external evaluation report presented by a committee of international experts, EQAR concluded that AERES was in compliance with European requirements for quality assurance in higher education (Standards and Guidelines for Quality Assurance in the European Higher Education Area" - ESG) adopted in Bergen in 2005.

European recognition of AERES was a major issue for the agency and the entities it reviews. This first entry in the European Register of an agency that evaluates both research and training, strengthens the credibility of French research and higher education. This recognition also gives AERES international visibility in assessments that could lead to the request for evaluations by institutions or authorities in other countries. AERES is an independent public institution which conducts the evaluation of institutions, research units, training and diplomas of higher education.

Sources: April/May 2011

Full article available at:

http://www.aeres-evaluation.fr/Actualites/Communiques-dossiers-de-presse/EQAR-l-AERES-reconnue-au-niveau-europeen

7.8 France – Portugal - Scientific Cooperation

A Memorandum of Understanding between the ANR (Agence Nationale de la Recherche) and the FCT (Foundation for Science and Technology Agency of the Portuguese Ministry of Science, Technology and

Higher Education) was signed in Paris on May 23rd to strengthen bilateral scientific cooperation between France and Portugal. This agreement will fund joint research projects led by researchers from both countries.

The research areas identified as priorities in this new partnership are biology and health, ecosystems and environment, and social sciences. The selected projects will be co-financed by the two agencies (the French researchers by the ANR and the Portuguese researchers by the FCT) and have a term of three years. The first call for proposals will be published in October.
Sources: June/July 2011
- Bulletin Electronic, June 21, 2011
- "FCT reforça cooperação com França" - Ciência Hoje – May 24, 2011 - http://www.cienciahoje.pt/index.php?oid=49181&op=all
- "Portugal e França vão financiar em conjunto projectos de investigação mistos" - Público – May 23, 2011 - Lusa - http://redirectix.bulletins-electroniques.com/0MY08
- "Portugal e França reforçam politica de cooperação cientifica" – May 19, 2011 - http://www.mctes.pt/?idc=14&idi=2103&idt=21

7.9 Inauguration of a powerful CT scanner (France)

AST-RX: arrival of a new scanner for advanced 3D exploration of samples in the natural sciences .
The French National Museum of Natural History, the Regional Council of Ile-de-France, Fondation Simone and Cino del Duca - Institut de France and the CNRS joined forces to inaugurate a brand new equipment for computerized tomography (CT) scanning : the platform for Access to Scientific X-Ray Tomography (AST-RX).
Source: September 2011
Full article available at (in French):
http://www2.cnrs.fr/presse/communique/2276.htm

7.10 Calls for Franco-American project ANR-NSF in the field of chemistry and materials

As part of the ANR (French National Research Agency)-NSF collaboration in the field of chemistry and materials, two calls for Franco-American projects will be opened under the 'White' International I Program early October and will close early January. The general 'White' or 'Blanc' program at ANR is non-thematic and open to all areas of research that ANR supports, it considers the equivalent of unsolicited proposals. The deadline of these calls is different for ANR and NSF, and MWN and ICC calls at the NSF are already open.
Source: September 2011
Full article available at (in French):
http://www.agence-nationale-recherche.fr/magazine/actualites/detail/appels-a-projets-franco-americains-anr-nsf-dans-le-domaine-de-la-chimie-et-des-materiaux

Contact NSF :
Dr. Michael Scott
Program Director
mjscott@nsf.gov

Dr. Zeev Rosenzweig
Program Director
zrosenzw@nsf.gov

7.11 Ecole Polytechnique - France

Ecole Polytechnique in France (September 14, 2011)

The classification QS World University Ranking® places the French Ecole Polytechnique at the 36th place worldwide as it was in 2010. École Polytechnique figures with ten other European institutions - the

Ecole Normale Supérieure in Paris, seven British universities, the ETH Zurich and EPFL in Switzerland, in the top 40 institutions worldwide.
Source: September 2011
Full article available at (in French):
http://www.polytechnique.edu/accueil/actualites/l-ecole-classee-au-15e-rang-mondial-82208.kjsp?RH=ACCUEIL-FR

QS World University Ranking:
http://www.topuniversities.com/university-rankings/world-university-rankings

7.12 Inria Hosts First W3C Office in France

To strengthen its relations with industry and research activities in France and Europe, the World Wide Web Consortium (W3C) announces today the opening of a W3C Office in France, hosted by Inria (French National Computer Science Research Institute). To mark the launch, the Office is organizing a session on Open Data at the Open World Forum on 22 September in Paris, in cooperation with Inria and Paris City Hall.
Source: September 2011
Full article available at:
http://www.inria.fr/en/news/mediacentre/w3c-france-office .

7.13 ENSTA is launching a Erasmus program in Hydrography and Oceanography (France)

In partnership with the University of Hamburg, Germany, and the University of Gent, Belgium, the ENSTA Britain (École Nationale Superieur de Techniques Avancees de Bretagne – France) has created an Erasmus Intensive Program in Hydrography and Oceanography. It is in the French department of Creuse, on the Lake Vassivière, that, from October 29 to November 11, will take place the training at the end of which participants will present an accurate map of the lake dam to EDF (Electricite de France) and to the Joint Union for the Development of Lake Vassivière. Fifty students will participate in this program and will be taught by professors from three institutions (ENSTA Britain, University of Hamburg and University of Gent). "They will benefit from a complementary approach and learn to work with multicultural teams, which will be an asset when entering the professional life," says one at ENSTA Britain. Unique in France, the curriculum Engineer Hydrography and Oceanography of ENSTA Britain is the best European training in this area. Remember that it is the only training to be certified Class A by the International Federation of Geography, the International Hydrographic Organization and the International Cartographic Association. It should be noted also that the ENSTA Britain, Hamburg University and the University of Gent are the only higher education institutions of the European Union to issue a Master 2 in topography and hydrography.
Source: October 2011
Electronic Bulletin, October 19, 2011
ENSTA Bretagne - Ingrid Le Toutouze : tél. : +33 (0)2 98 34 88 51 - email : ingrid.letoutouze@ensta-bretagne.fr
ENSTA: http://www.ensta-bretagne.fr/index.php/actualite/erasmus-intensive-programme-hydrography/
Erasmus Program: http://www.europe-education-formation.fr/erasmus.php

8 Germany

8.1 Changes at the Top in German Joint Scientific Conference and Scientific Council

The end of January was marked by several changes at the head of Germany's major research and academic policy body making.

Professor Wolfgang Marquardt took over from Peter Strohschneider as head of the Scientific Council (Wissenschaftsrat WR). Meanwhile, Hans-Gerhard Husung was appointed as the new Secretary General of the Joint Science Conference (GWK) [1]. His predecessor, Jürgen Schlegel, is retiring after having been Secretary General of the Bund-Länder Commission for Educational Planning and Research Support

(BLK) since 1990 and Secretary General of GWK, an organization that replaced the BLK in 2008.

Jürgen Zöllner, Senator from Berlin for Education, Science and Research and current chairman of GWK, praised the work of Jürgen Schlegel for the past 20 years. The trained lawyer will be replaced by a specialist in scientific management. Between 2004 and October 2010 Mr. Husung has been State Secretary of the Education Department, Science and Research of the Berlin Senate, led by Jürgen Zöllner.

The new president of Wissenschaftsrat, Wolfgang Marquardt, led the Chair of Process Technology at the Technical University of Aachen (RWTH, North Rhine-Westphalia). The 54 year old researcher began his career at the University of Stuttgart (Baden-Wurttemberg) and continued at the University of Wisconsin, before arriving at Aix-la-Chapelle. In 2001 he was awarded the Gottfried Wilhelm Leibniz of the DFG (national agency for research). In his work program, he has listed the problems associated with attractiveness, especially among university programs, pointing to the inadequate number of faculty positions in the German system.

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[1] institution where sit members representing federal and Länder responsible for education and research.

Source: February 2011
- Electronic Bulletin, February 2, 2011
- "Generalsekretärswechsel in der Gemeinsamen Wissenschaftskonferenz (GWK)", GWK Press release January 31, 2011 - http://www.gwk-bonn.de/fileadmin/Pressemitteilungen/pm2011-03.pdf
- "Neuer Vorsitzender für den Wissenschaftsrat, Suddeutsche Zeitung article – January 29, 2011

8.2 First Decisions in the Second Phase of the Excellence Initiative (Germany)

Joint Commission of the DFG and the German Council of Science and Humanities selects 59 new proposals from 32 universities for final round / Full proposals until September 2011 / Decision in June 2012

(09.03.11) In the second phase of the Excellence Initiative, the first decisions have been made. The Joint Commission of the DFG and German Council of Science and Humanities has selected 59 projects from 32 universities for the final round of the competition. They were selected from 227 proposals that were submitted by 64 universities. Amongst the successful proposals, 25 are for graduate schools, 27 for clusters of excellence and 7 for institutional strategies. They must all submit detailed funding applications by 1 September in order to compete with the 85 institutions that are currently funded as part of the Excellence Initiative. The final decision will be made in June 2012.

Source: March 2011
Full article available at:
http://www.dfg.de/en/service/press/press_releases/2011/press_release_no_08/index.html

8.3 Industry Skeptical About Bachelor of Physics Degree (Germany)

The German Physical Society (DPG) commissioned a survey on the expectations of the industrial and business communities on the subject of training. The results of the study, released on March 14, were presented at one of the most important world conferences in Physics which brings together nearly 7,000 experts in the field.

The study, conducted among 28 SMEs and large groups, provides information on the responses by profession following the EU-driven university reform in France, the LMD Reform):
- Half of respondents reported that they were well informed on the new reforms.
- The Bachelor degree was seen as inadequate in terms of training.
- The University degree (Bachelor-Physik) was further criticized by the industry when compared to the Bachelor's degree in Physics awarded by the specialized colleges (Fachhochschule). The latter offers additional applied training.
- Some responses put this in the context of the specific German labor market in this sector, which is

recruiting highly skilled laboratory technicians.
- Respondents do not view the Bachelor degree as a terminal university degree, but rather as a first step towards the Master's degree in Physics.
- Only a few large companies have internal training mechanisms that could afford to hire students at the bachelor level.
- Standardization of qualifications is seen as positive because it allows a clear comparison between the different Länder and institutions of higher education.
- The possibility of thematic reorientation and change of school is welcomed by respondents because it opens new multidisciplinary and individual training.
- The survey confirms the strong demand for highly qualified personnel (i.e. with a Master's level) in industry, particularly in research and development.

Source: March 2011
Electronic Bulletin, March 17, 2011

8.4 DFG Establishes 13 New Priority Programs (Germany)

Topics range from historical port structures to interactions in bacterial cultures, the stability of glass, and regenerative fuels.

Sources: April/May 2011
Full article available at:
http://www.dfg.de/en/service/press/press_releases/2011/press_release_no_15/index.html

8.5 Launch of the Germano-Russian Education, Science, and Innovation Year

Annette Schavan, German Federal Minister for Education and Research (BMBF), and her Russian counterpart, Andrei A. Fursenko, inaugurated the Germano-Russian Year for Education, Science, and Innovation on May 23rd in Moscow.

"*We stand before a long history of cooperation and exchange. We wish to intensify this year and build new forms of cooperation*," said Annette Schavan in the presence of her Russian counterpart and German and Russian senior officials from scientific organizations, research institutes, universities, and companies. Under the message "Partnership of Ideas," the two countries will demonstrate the diversity and excellence of the Germano-Russian cooperation in education and research through joint initiatives.

The focus of this initiative for both countries is to support young scientists. Minister Schavan expects that the foundation of a Germano-Russian academy will together young researchers from both countries, as well as establishing a strong bilateral partnership in the development of vocational training.

The program covers four themes to which will be added a series of events during the next twelve months:

- Consolidation of advanced research - strengthening of institutional cooperation
- Development of bilateral vocational training partnerships
- Applied research as an engine of modernization and innovation
- Provide young scientists connections for sustainable cooperation

Germano-Russian cooperation in aerospace research is already fruitful. There are also bilateral exchanges of ideas and people to develop new technologies for electric vehicles. The two ministers expressed their common desire to strengthen cooperation between the two countries, supported by the Germano-Russian Year 2011-2012 and the actions implemented at this occasion.

Sources: June/July 2011
Electronic Bulletin, June 1, 2011
Dedicated web site "Germano-Russian 2011-2012 Year for Education, Science and Innovation:
http://www.deutsch-russisches-wissenschaftsjahr.de/de/wissenschaftjahr.php
"Russen und Deutsche lernen und gemeinsam forschen", BMBF press release – May 23, 2011 -
http://www.bmbf.de/press/3098.php

8.6 Germany and France strengthen cooperation in the field of research and innovation

On the occasion of the opening of the 4th Forum of the Franco-German cooperation in research, Annette Schavan, Federal Minister for Education and Research, and Laurent Wauquiez, French Minister of Higher Education and Research, launch a joint research in the field of health and biotechnology.
Source: October 2011
Full article available at (French):
http://www.enseignementsup-recherche.gouv.fr/cid58178/l-allemagne-et-la-france-renforcent-leur-cooperation-dans-le-domaine-de-la-recherche-et-de-l-innovation.html

8.7 DFG Establishes Twelve New Research Units (Germany)

Units to Cover a Broad Spectrum of Subjects, Ranging from Satellite Navigation to Borderline Personality Disorders and Minute Technical Components.
The DFG has established nine new Research Units and three Clinical Research Units. Researchers at these multi-sited, interdisciplinary Research Units will explore topical research questions using innovative methods and approaches. The Clinical Research Units combine the areas of clinical, applied and basic research. The nine new Research Units will receive more than €15 million over the next three years, while the three Clinical Research Units will receive over €8.2 million in their initial four-year funding period.
October 14, 2011
Source: October 2011
Full article available at:
http://www.dfg.de/en/service/press/press_releases/2011/press_release_no_50/index.html

DFG Definition: A Research Unit is made up of a team of researchers working together on a research project which, in terms of thematic focus, duration and finances, extends beyond the funding options available under the Individual Grants Program or Priority Program. Research Units provide the staff and material resources required for carrying out intensive, medium-term cooperative projects (generally six years). Research Units often contribute to establishing new research directions. Funding opportunities for Research Units are subject to the same principles as research grants. (www.dfg.de)

8.8 New Network of Excellence between Germany and Africa

The Alexander von Humboldt Foundation, traditionally charged to attract young foreign researchers to Germany, launched in conjunction with researchers from several African countries a German-African network of scientific excellence named AGNES (African-German Network of Excellence in Science). The AGNES network aims to highlight the importance of research and innovation for sustainable development in Sub-Saharan Africa. Leading African researchers seek to develop closer cooperation among themselves and with their German colleagues, and to encourage young researchers to develop new scientific collaborations. The network was launched in Addis Ababa (Ethiopia) on 16-18 November 2011.

The Alexander von Humboldt Foundation has so far supported 1100 African scientists. The role of these scientists is particularly important in Africa, where the number of researchers in the population does not exceed 1:10,000 or even 1:20,000. AGNES is to support the current societal transformation in Africa, which gives more relevance to individual performance and places scientific excellence as recognized criterion for professional development. Until recently, the principle of seniority prevailed, especially in the selection of directors of institutes, but young researchers now have more access to positions of responsibility. They should help African universities to develop strategies to overcome the many challenges facing Africa and to produce world-class researchers.
Source: November/December 2011
Electronic Bulletin, November 17, 2011
Georg Scholl, Leiter Referat - Press, Kommunikation und Marketing, Alexander von Humboldt Stiftung - Phone: +49 228 833 258 - email: presse@avh.de

8.9 Eight new Collaborative Research Centers for the DFG (Germany)

The German Science Foundation (DFG) funded eight new Collaborative Research Centers (SFB). The announcement was made by the DFG's Grants Committee during its fall meeting in Bonn. The new eight Collaborative Research Centers will be funded at 82.7 million Euros for a period of four years starting

January 1st, 2012. The themes are varied, ranging from physical processes related to flow (which plays a role in the formation of the planets) to new therapies for liver diseases, through single-crystal super-alloys which are used in the construction of modern gas turbines. Other centers address processes relevant to sustainable manufacturing, and chemical and biological processes in cells. One center is transregional (Transregio Program). The DFG Grants Committee also authorized the extension of thirteen existing Collaborative Research Centers for a period of four years. The DFG will therefore support a total of 234 Collaborative Research Centers as of January 2012.

The new Collaborative Research Centers (SFB):
- At the Technical University of Berlin (TUB), the SFB 1026 "*Sustainable Manufacturing - shaping the creation of wealth in a sustainable manner*" seeks to answer the question of how to manage and produce goods in a sustainable fashion and in a global context. The connection between energy, raw materials and labor is essential to maintaining our habitat, so production and environmental engineers have joined economists and mathematicians to develop innovative manufacturing processes and virtual systems for product development.

- At the universities of Bochum (North Rhine - Westphalia) and Erlangen-Nuremberg (Bavaria) single crystal super-alloys will be developed. These are key materials for modern gas turbine blades, to be used for ventilation as well as for energy supply. Transregio SFB 103 "*From the atom to turbine blades - the scientific basis for a new generation of single crystal super-alloys*" seeks to develop greater efficiency in gas turbines for greater durability.

- The SFB 974 "*Communication and relevance of systems in the degradation and regeneration of the liver*", at the University of Düsseldorf (North Rhine - Westphalia) aims to develop new strategies for liver disease. The researchers want to get an overview of the mechanisms, structures of communication and decision making that play a role in the degradation and regeneration of the liver.

- At the University of Erlangen-Nuremberg (Bavaria), the SFB 953 *"Carbon allotropes synthesis*" explores the enormous potential of different forms of carbon obtained synthetically, such as grapheme, for high performance applications. Researchers (engineers, chemists, and physicists) also consider a list of fundamental chemistry and physics questions for which the synthetic forms of carbon provide ideal models.

- At the University of Göttingen (Lower Saxony) the SFB 990 "*Ecological and socio-economic functions and transformation systems of lowland tropical forests*" seeks scientific evidence demonstrating the ecological functions and socio-economic characteristics of tropical forests and of agrarian transformation systems, in order to explain how we can best preserve or improve them. Many aspects will be examined, including biodiversity and greenhouse gas emissions.

- The SFB 963 "*Stability of astrophysical flows and turbulence*", also at the University of Göttingen, will study the processes related to the physics of flows, which are ubiquitous in astrophysics and are key to the formation of planets, stars and galaxies.

- At the University of Constance (Baden-Württemberg): the SFB 969 "C*hemical and biological principles of cellular proteostasis*" explores the concept of "proteostasis.", that is, the fundamental, interrelated chemical and biological processes that control all cellular activities of proteins in space and time.

- At the University of Mainz (Rhineland-Palatinate) the role of hadrons, that is, subatomic particles made of quarks and gluons, is examined in the context of particle and atomic astrophysics by the SFB 1044 entitled "*Lower energy limits of the standard model: quarks and gluons in hadrons and nuclei*." The question of how quarks and gluons assemble into hadrons will also be explored.
Source: November/December 2011
Electronic Bulletin, December 1, 2011
Dr. Klaus Wehrberger, Leiter der Gruppe Sonderforschungsbereiche, Forschungszentren, Exzellenzcluster, DFG - Phone: +49 228 885 2355 - email: Klaus.Wehrberger@dfg.de

SFB program at the DFG - http://www.dfg.de/en/research_funding/programmes/coordinated_programmes/collaborative_research_centres/index.html

8.10 Strengthening Financing of Education and Research in Germany

The 2012 budget of the Federal Ministry of Education and Research (BMBF), passed last November 25, 2011, will reach a record high of 12.9 billion Euros, an 11% increase over the previous year. For comparison, the overall increase in the federal budget is only 400 million Euros. "S*trengthening education and research is a constant element of our government approach. Thus, we ensure sustainable growth and improvement of Germany's position in the global competition for innovation*," said the Federal Minister of Education and Research Annette Schavan. The budget of the BMBF is driven by three major initiatives: the "*2020 Agreement for Higher Education*" [1], the "*Excellence Initiative*" [2], and the "*Agreement for Research and Innovation*" [3].

Funding via the Agreement for Higher Education was significantly augmented in view of the increasing number of university students [1] and the cancellation of compulsory military service in 2011. The states will receive 1.1 billion Euros in 2012 and 5 billion Euros by 2015 to create over 335,000 spaces for new students. Two billion Euros will be invested by 2020 to improve university studies and the number of scholarships will increase significantly. "*Our goal is clear: no one should be prevented from studying because of financial reasons*," insists Annette Schavan. Increasing the number of university students (over half a million new students this year) is an excellent tool against the threat of lack of technical workers in some areas. The BMBF also works towards recognition of diplomas, with a new law on the subject. Vocational training will be modernized and strengthened: 185 million Euros are planned for this purpose in 2012.

University research will continue to strengthen through the excellence initiative (308 million Euros), as the second pillar of the higher education agreement. Support for research equipment at research institutions and for the German Research Foundation (DFG) will increase 5% in 2012 to a total of 4.3 billion Euros. Annette Schavan stressed that "*This is a major investment in science and research, which are the basis of all innovation and therefore a pillar of strength for Germany*." By supporting projects through its High-Tech Strategy, Germany moves to the forefront in the search for solutions to global challenges in the areas of climate and energy, health and nutrition, safety, and communication. As an example of this forefront strategy, 700 million Euros are planned through 2015 for the construction of German centers for medical research aimed at improving the prevention and treatment of diseases important to society.

The Minister is delighted: "*Our strategy is taking off, our path is the right one: Germany has successfully maintained and expanded its position within the group of highly performing advanced scientific systems in the world. We nurture new areas of research early and successfully*." Thus, the BMBF has included in its sixth program for energy research a novel research agenda for energy transitioning, with cross-cutting initiatives on storage technologies. German researchers are recognized by international awards; many international researchers have settled in Germany to take advantage of advanced equipment. Germany is also third in patent submissions behind the United States and Japan. "*We invest in the future of our country*", says Annette Schavan.

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[1] In June 2007, the Federal Government and the States signed an "Agreement for Higher Education in 2020." It was designed to create 91,000 additional places for students in institutions of higher education in four years (2007-2010). At the end of this period, 182,000 student slots were created. In 2009, the second phase of the Agreement for Higher Education was launched, which included 3.2 billion Euros of investment through 2018 and the creation of 275,000 student slots by 2015. This will allow to absorb about 59,000 additional students to be incorporated in the coming years due to the disappearance of compulsory military service, as well as those resulting from the transition to a 12-year school system (see note [4]).

[2] In order to increase the flexibility, competitiveness and quality of its research, Germany decided in 2005 to strengthen university research and to create academic centers of excellence, actions that have been implemented through the "Excellence Initiative" program. Conducted under the auspices of the German Science Foundation (DFG) and the German Council of Science and Humanities (Wissenschaftsrat), this program covers an initial period of 6 years (2006-2012) and involves 1.9 billion Euros. Support for technology transfer is particularly enhanced through establishment of clusters of excellence ("Excellenzcluster") within

universities or in research organizations outside the university system and in connection with industry. Support is on average 6.5 million Euros / year / cluster.

[3] The Agreement for Research and Innovation was established in 2005 for the period 2006 to 2010 and was extended until 2015. The agreement commits the States and the Federal Government to increase their contributions to major research institutes (Fraunhofer Society, Helmholtz Association, Max Planck Society, Leibniz and the German Science Foundation- DFG) by at least 3% annually and 5% starting in 2011. In turn, research institutions commit themselves to increase the quality and effectiveness of their research. A monitoring system was set up to assess compliance with the objectives set by the agreement.

[4] Following an educational reform in some states, where the length of schooling which was previously 13 years was reduced to 12 years, two age groups have simultaneously entered universities this year.

Source: November/December 2011
Electronic Bulletin, December 1, 2011

9 Greece

9.1 EuroRec EHR Quality Seal Level 2 granted to EHR system developed by FORTH

Nursing and Medical Applications (under the product name ICS-M), which are part of the software suite "Integrated Care Solutions" developed by the Institute of Computer Science of the Foundation for Research and Technology - Hellas (FORTH), have been certified with the Seal of Quality Electronic Health Record (EHR) Level 2 (EuroRec EHR Quality Seal Level 2) by the European Institute for Health Records EuroRec (http://www.eurorec.org/).
Source: October 2011
Full Article available at:
http://www.forth.gr/index_main.php?l=e&c=20&i=227

10 Hungary

10.1 2011 World Science Forum Planned for Budapest

The organizing committee of the World Science Forum met in Budapest to prepare the fifth annual meeting to be held in 2011 and entitled "***The Evolution of the Scientific World: Challenges and Opportunities.***" This event is organized by the Hungarian Academy of Sciences in partnership with UNESCO and the American Association for the Advancement of Science (AAAS).

Chaired by József Pálinkás, the President of the Hungarian Academy of Sciences, the organizing committee has identified general themes to be discussed at the next edition of the conference and potential subjects of lectures and seminars. This committee is composed of General Directors of UNESCO and ICSU, the CEO of AAAS, three Nobel Prize laureates, the President of the Academy of Science of Brazil, the Chairman of the Science Council of Japan and the President of the European Academy of Sciences (EASAC).

Various issues that the global scientific community should respond to will be discussed at the Forum. In the current climate, scientists have very little time to find solutions to major social problems, like overpopulation, energy, or environmental protection. Thus, the Forum will provide an excellent opportunity for politicians and scientists to reflect on these topics. The central themes of current scientific debates will also be discussed, such as the use of stem cells for medical or the use of genetically modified organisms.

Hungary's intention is to establish strong cooperation with the new scientific and technological powers such as Brazil, China, India, Korea, and Singapore, as well as to work closely with future scientific powers such as Africa and the Arab countries. Brazil, co-organizer of the fifth edition of the World Science Forum, will host the 2013 edition. So far, only Hungary had hosted the World Science Forum, but József Pálinkás wishes that the event is organized in another city in alternate years.
Source: January 2011

Electronic Bulletin Jan 12, 2011
Hungarian Academy of Science: http://mta.hu/english/

10.2 Hungary Boosts Researcher Funding

The President of the Hungarian Academy of Sciences announced the establishment of the third edition of the program "From Brain Drain to Brain Gain" enabling talented young Hungarian researchers to conduct their research in their countries. Six hundred million Forints (about 2.2 million Euros) will provide funds to selected young scientists to establish their research team in various institutes of the Academy of Sciences or in Hungarian universities.

Created in 2009, this program has funded 12 research teams. The quality of initial results shows the importance of this program for scientific research in Hungary. Up to now, only projects within the institutes of the Academy of Sciences could be selected. This year, however, half of the 600 million Forints will be dedicated to funding new projects at Hungarian universities. A total of 1.1 billion Forints (~ € 4.1 million) were allocated to this program in 2011.

The program includes two categories of scientists. The first consists of researchers aged 30 to 40 years who can start their own independent research team to work independently. The second consists of researchers aged 35 to 45 years who are already internationally recognized and desire to pursue their work.
Source: March 2011
Electronic Bulletin, March 15, 2011

10.3 Science Europe – a New Joint Research Organization in Europe (Hungary)

Science Europe, a newly established research and research funding organization aims to become a unified and distinct voice for the interest and values of science in European policy. Social scientist Paul Boyle was elected president at the founding assembly held in Berlin. HAS President József Pálinkás became a member of the ten-strong Board of Directors. The 51 founding organizations together conduct and finance a lion's share of research in Europe.
Source: October 2011
Full article available at:
http://mta.hu/news_and_views/science-europe-a-new-joint-research-organisation-in-europe-128738

10.4 Rhapsody for Hungarian Science

Major reforms and extra funding will help free country's researchers from communist legacy.
With a shake-up of its national academy and a major boost in research funding next year, Hungary hopes to regain its long-lost status as a scientific powerhouse in central Europe.
The Hungarian Academy of Sciences dominates the country's research scene. Like most of its counterparts in the formerly communist countries in central and Eastern Europe, it is a cross between a distinguished learned society and an operational research organization, supporting research at universities and employing around 2,800 scientists at 40 research units.
The country has an eminent scientific past, boasting a string of Hungarian-born Nobel prizewinners in the twentieth century. But today its funding and scientific output lag behind those of many other European nations.

"Many of our present institutes have a mundane office air about them when they should be inspiring academic hubs," says József Pálinkás, the academy's president, who has campaigned vigorously for the changes since his re-election in May. "Without more pronounced teamwork and competition we will lose our foothold in the world's scientific community."

At a special general assembly held last week in Budapest, three-quarters of members with voting rights approved a plan to reorganize the academy into ten large multidisciplinary research centers. These will have revised research agendas, modernized management structures and international advisory boards

that regularly review operations. Five remaining institutes, including the prestigious Institute of Experimental Medicine in Budapest, will remain separate and keep their existing remits.

Scientists formerly working in isolated institutes will be brought together to pursue more collaborative research at the new centers, which will cover disciplines including photonics and particle physics, astronomy and the Earth sciences, chemistry and materials research, ecology, energy research, and the humanities. Two vacated buildings will be sold and the revenues invested in improving other institutes. On 19 December, Pálinkás will appoint interim directors of the new centers, before the positions are advertised internationally next year.

During communist times, the institutes were organized along Soviet lines — controlled by an exclusive circle of academicians and funded directly by the state, with no competitive grants or external review of research agendas. The new structure is inspired by Western research organizations such as Germany's Max Planck Society, Pálinkás says, where principal investigators vie for grants in a highly competitive system.

"There are some people here who have a strong dislike of change of any type," says Tamás Vicsek, a biophysicist at the Eötvös Loránd University in Budapest who oversees one of some 140 academy-funded university research groups. "But the new generation of Hungarian scientists is eager to see improvements in how research is operated in this country — and I totally agree with them that this is what we need."

Vicsek, who won a European Research Council advanced grant in 2008 for his work on collective cell motion, says that he is looking forward to collaborating with the academy's multidisciplinary centre for natural sciences, which will be based at his university's campus in a laboratory facility currently under construction. "I'm always in favor of putting biology next to physics," he says. "It's a big improvement and it will certainly facilitate joint research."

Science advocates have also secured the first notable increase in government funding in almost a decade. In 2012, the government will increase its funding to the academy by more than 20%, from Ft35 billion (US$152 million) to Ft43 billion. This includes a more than doubled contribution of Ft2.5 billion for a program created in 2009 to help young scientists set up independent research groups in Hungary. Because Prime Minister Viktor Orbán is eager to break with the weak institutions of the post-communist era, insiders say that modernization of the academy was a prerequisite for the funding boost.

The extra money will enable the new centers to hire some 200 young group leaders and senior scientists next year, says Pálinkás. Moreover, Ft2.3 billion will be spent on urgently needed research equipment next year, and the budget of the Hungarian Scientific Research Fund, Hungary's main grant-giving agency for basic research, will rise from Ft5.4 billion to around Ft8 billion (see 'Growth spurt').

The changes are set to bring Hungarian science capacity closer to that of neighboring eastern European Union member states such as Slovenia and the Czech Republic. But to capitalize on the changes, Hungary must also revamp its inefficient patent system and other bureaucratic hurdles to innovation, says Balázs Gulyás, a Hungarian neurobiologist at the Karolinska Institute in Stockholm, who is also executive director of the World Science Forum, a biannual science policy conference held in Budapest. "The academy changes were absolutely necessary, but they are only a first step," Gulyás says.
Source: November/December 2011
Nature News - Quirin Schiermeier - December 12, 2011

11 Ireland

11.1 Science Foundation Ireland welcomes Government's commitment to research and development

Science Foundation Ireland (SFI) has welcomed the Government's continued commitment to science research and development, following the announcement of Budget 2011.

Commenting on the budget announcement, Mr. John Travers, Director General, SFI, said: "The budget 2011 capital allocation of €161 million to SFI represents an €11 million increase on 2010 funding. During this intense period of economic difficulty, this clearly highlights Ireland's commitment to investing in high quality scientific and engineering research to support long-term, sustainable economic development. The SFI research community continues to enhance Ireland's international reputation in science and engineering, enabling increasing levels of high tech foreign direct investment and indigenous innovation. The budget allocations will allow third level institutions to foster emerging talent and continue to build partnerships with industry so that innovative research can continue to flourish for years to come."

According to SFI's Director of Policy & Communications, Dr. Graham Love: "The increased financial provision to SFI in 2011 will allow us to nurture research investments made over the past decade and to invest in a new wave of cutting edge science and engineering. This is very important for Ireland's international reputation, for our on-going ascent of the international science rankings, and for transforming the academic-industrial relationship to Ireland's economic advantage".
Source: February 2011
Electronic Bulletin, February 7, 2011
Science Foundation Ireland welcomes Government's commitment to research and development" – December 12, 2010 - http://www.sfi.ie/news-events/press-releases/science-foundation-ireland-welcomes-governments-commitment-to-research-and-development

11.2 Irish projects receive over €269 million in EU funding

Researchers from Irish companies and higher education institutions have won funding totaling €269 million since 2007 for research projects in areas like ICT, health, nano-technology and energy, announced Minister for Science, Technology and Innovation Conor Lenihan.

The €50 billion Seventh EU Framework Program (FP7), the largest European R&D funding program ever, is seen as a major asset in the EU's fight against the current economic crisis with its ring-fenced budget growing every year by 13% until 2013.
Source: February 2011
Electronic Bulletin, February 7, 2011
"Irish projects receive over euros269 million in EU funding" - TechCentral.ie – Full article available at: http://www.techcentral.ie/article.aspx?id=15946

12 Italy

12.1 Peer Review Applied by Italian Institutions

The different approaches on peer review applied by Italian Institutions within the European scenario/agenda will be discussed in Rome on 14 September 2011.
The Consiglio Nazionale delle Ricerche (CNR), the European Science Foundation (ESF), and the Istituto Nazionale di Fisica Nucleare (INFN), joined forces to organise a conference on peer review.
In particular, they aim at presenting and discussing the recently published European Peer Review Guide, which is the product of a common effort between more than 30 national research funding and performing organisations from 23 countries, the European Science Foundation (ESF), the European Research Council (ERC), the European Commission and the Research Executive Agency (REA). The European Peer Review Guide draws a European and international good practice in peer review processes, and seeks to promote a measure of coherence and effectiveness in the form of a practical reference document at the European level. The Guide is based on a comprehensive survey, the ESF Survey Analysis Report on Peer Review Practices, which benchmarked and identified good practice amongst the many different systems and criteria currently in use in European countries. The Rome conference is an

important occasion to discuss the different approaches on peer review applied by Italian Institutions within the European scenario/agenda.

Links:
www.attivitaeuropee.cnr.it/peer-review

Source: September 2011
http://www.esf.org/media-centre/ext-single-news/article/the-different-approaches-on-peer-review-applied-by-italian-institutions-within-the-european-scenario.html

Additional information at:
European Peer Review Guide: http://www.esf.org/activities/mo-fora/peer-review.html

13 Luxembourg

13.1 Lead Agency Agreement Signed Between the Research Foundation Flanders (FWO), and the Luxembourg Fonds National de la Recherche (FNR)

Researchers at Flemish universities and research institutes are invited to submit a proposal with a partner from Luxembourg, within the framework of the regular call for FWO research projects.
Source: February 2011
Full article available at:
http://www.fnr.lu/en/News-Events/News/Cooperation-Agreement-between-FNR-and-FWO-Flanders-Call-for-Research-Projects

14 Norway

14.1 Norwegians succeed in earning top grants

Seven Norwegian researchers were awarded Advanced Grants from the European Research Council (ERC) in 2010.

Of the 37 researchers in Norway who applied for an ERC Advanced Grant during 2010, 15 made it to the final round, with seven landing the top honors. This success rate of nearly 20 per cent for Norwegian researchers applying for Advanced Grants surpasses the expected average of 14 to 15 per cent for applicants from the other European countries.
The seven ERC grant winners will receive a total of roughly NOK 130 million toward their research. Four of the winners work at the University of Oslo, two at the Norwegian University of Science and Technology (NTNU) in Trondheim, and one at the University of Bergen.
Source; January 2011
For additional information:
http://www.forskningsradet.no/en/Newsarticle/Norwegians_succeed_in_earning_top_grants/1253964251072
ERC Advanced Grants main link:
http://erc.europa.eu/index.cfm?fuseaction=page.display&topicID=66

14.2 Funding for more near-winners (Norway)

Norwegian researchers whose applications for European Research Council (ERC) grants do not win funding purely for reasons of budgetary constraints may now seek funding from the Research Council.
Source: June/July 2011
Full article available at:
http://www.forskningsradet.no/en/Newsarticle/Funding_for_more_nearwinners/1253966981516?WT.ac=forside_nyhet

15 Poland

15.1 Polish Presidency of the EU in the fields of Higher Education and Research: Priorities

Under the theme of "intellectual capital" of Europe, the four main priorities of the Polish Presidency of the Council of the European Union (2nd half of 2011) in the area of Higher Education and Research are:

Renew Universities

In Poland, the modernization programs include networks, governance institutions, and career academics. The law of March 18, 2011 shall come into force on October 1st, 2011. The central objective is to strengthen cooperation between universities and businesses. An international conference took place at the Jagiellonian University in Krakow on the themes of "Science, Technology, Higher Education and Society" on July 5-7, 2011.

Increase mobility between Member States and the Eastern countries

The priority for the Polish Presidency is to promote the mobility of students, professors and researchers. The objective is to increase academic exchanges between the EU Member States and Eastern countries such as for example Ukraine, Belarus, ...).
Poland organized a conference on "Eastern Dimension of Mobility" last July 6 to 8, 2011 at the Copernicus Science Centre in Warsaw. It covered various sectors involving four ministries (Science and Higher Education, Education, Culture, Sport and Tourism). This conference was a preparatory step to the Ministerial Summit on Eastern Mobility (September 29-30, Warsaw).

Simplify and harmonize the framework program for research development and innovation

The priority is to lay a new foundation for 8th Framework Program (2014-2020), which will succeed to the FP7 (2007-2013). The objective is to design a more relevant and accessible program to small research teams and SMEs, through simplified financial and administrative procedures.
During the Polish Presidency, particular attention will be given to the decision on the merge of the EURATOM program into the FP.
An international conference organized by the Ministry of Science and Higher Education, entitled "The European Research Area" was held July 20, 2011 in Sopot.

Increase the synergy between the Framework Program and Cohesion Policy

The fourth priority will pose the question of the complementarity of the FP and the use of structural funds for cohesion policy. In particular, for the countries concerned, to articulate the funds managed by the ministries of regional development improving research infrastructure with those from the FP.
Poland will actively support the creation of clusters in Europe - "Regions of Knowledge" - and support plans organizing co-financing of the construction and operation of research infrastructures.
An international conference entitled "The role of Cohesion Policy in the Creation and Implementation of a Regional/National Science and Innovation" will be held in Warsaw on October 4-5.
Sources: June/July 2011
Electronic Bulletin, July 11, 2011
Polish Presidency of the EU – Higher Education and Research:
http://www.bulletins-electroniques.com/actualites/67266.htm
Polish Presidency of the EU web site: http://pl2011.eu/en
Ministry for Higher Education and Research: http://www.nauka.gov.pl/

15.2 Science Policy and European funding - France and Poland cooperate through the ERA-NET program

The forms of cooperation through the European programs are many, the first of them being the current Framework Program (FP7, 2007-2013).
A device may be less known from the public are the ERA-NET program: NET network, ERA European Research Area (European Research Area). The "ERA" bears the objective of the EU to enhance the coordination of national or regional research, or integration, national strategies in research and innovation

of the member states. A tool to achieve this has been established since 2003 (beginning of FP6): The ERA-NET. These networks, now about 70 - were gradually introduced on all scientific and technological themes and involving a variable number of member states, the number of states being encouraged by the program as a pledge in structuring Europe.

The activities of these networks consist mainly of:
- Systematic exchange of information and best practices on national existing programs;
- Sharing and analysis of strategic issues of common interest;
- Development of joint activities between national and/or regional;
- Implementation of joint transnational research.

Of 57 projects with French participation, fifteen associate the Polish National Agency of R&D - NCBiR - (in brackets stands the ERA-NET French and Polish partners):
- Air Transport Net (AirTN), with the French Ministry of Ecology, Sustainable Development, Transportation and Housing (MEEDTL) and ONERA, and for Poland, the National Agencyfor R&D (NCBiR)
- Deepening and Broadening of Astroparticle Physics European Coordination (ASPERA2), with the French CEA and CNRS (IN2P3) and for Poland, the NCBiR
- European Coordinated Research on Long-term Challenges in Information and Communication Sciences and Technologies (Chist-ERA) with the French ANR (National Agency of Research) and for Poland, the NCBiR
- ERA-NET ON ECO-INNOVATION - Boosting eco-innovation through cooperation in joint research and dissemination (eco-innovation), with the ANR (French) and ADEME (French), and for Poland, the NCBiR
- ERA-NET TRANSPORT II, with MEEDTL (France) and NCBiR (Poland)
- A network of research councils for the development and implementation of joint bottom-up European programs for curiosity driven research (ERA-CHEMISTRY), with the CNRS/ NC and the University Pierre et Marie Curie (France), and the NCBiR (Poland)
- Strategic networking of RDI programs in construction and operation of buildings (ERACOBUILD), with the Centre Scientifique et Technique du Bâtiment and MEEDTL (France), and NCBiR (Poland)
- European Network of transnational collaborative RTD in the field of NanoMedicine (EuroNanoMed), with the CEA and the ANR (France) and NCBiR (Poland)
- Maritime Technologies II (MARTEC II) with MEEDTL (France) and NCBiR (Poland)
- Transnational Call for Collaborative Proposals in basic nanoscience research (NanoSci-E +), with the CNRS/INP and the ANR (France) and NCBiR (Poland)
- European network on Applied Research Program to the protection of tangible cultural heritage (NET-HERITAGE), with the Ministry of Culture and Communication (France) and the Ministry of Culture and National Heritage (MKDN) (Poland)
- Network of European Funding for Neuroscience Research (NEURON), the CNRS/InSb, INSERM and ANR (France) and NCBiR (Poland)
- ERANET for nuclear physics infrastructures (NuPNET) with CNRS/IN2P3 and CEA (France) and NCBiR (Poland)
- Facing Sustainability: New Relationships Between Agriculture and Rural Areas in Europe (RURAGRI), the Ministry of Agriculture and Fisheries and INRA (France) and the Institute of Pomology and Floriculture Research in Skierniewice (ISK) (Poland)
- (Under construction) ERA-NET on Translational Cancer Research (TranScan), with National Cancer Institute (INCA, France) and NCBiR (Poland)

To this list we must add the networks under the "Initiative 185":
- European Metrology Research Program (EMRP), the National Laboratory of Metrology and Testing (France) and the Central Office of Measures (Glówny Urzad Miar), with the participation of the Institute of low temperature (INTIB PAN) and the Institutede Atomic Energy (IAE POLATOM) (Poland)
- The Ambient Assisted Living Joint Program (AAL), on the use of ICT for the elderly, with the NRA (France) and NCBiR (Poland)
- Eurostars program (market-oriented research across themes Focus on innovative SMEs), with OSEO (France) and NCBiR (Poland). The latter program, which can be considered an extension of EUREKA, has a total budget of 400 M€ for the period 2008-2013.

ERA-NET programs, for a maximum period of 5 years, are managed according to the rules common to all European programs, participants in these projects being from public, regional or national entities. Community financing of an ERA-NET project (max. 100% of the total costs up to 3 M€) is small compared to the amounts allocated to projects of cooperation in R&D under the FP7.
Sources: June/July 2011
Electronic Bulletin, July 11, 2011
ERA-NETs projects available at: http://netwatch.jrc.ec.europa.eu/nw/

16 Slovakia

16.1 Slovakia shifts EU science funding to highways

The Slovak Ministry of Transportation said it will reallocate 180 million of EU funding on science, research and education in favor of building road infrastructure, triggering alarm bells within the scientific community.
Source: February 2011
EurActiv Slovakia reports - Full article available at:
http://www.euractiv.com/en/priorities/slovakia-shifts-eu-science-funding-highways-news-502194?utm_source=EurActiv+Newsletter&utm_campaign=d7b45891cb-my_google_analytics_key&utm_medium=email
Published: 16 February 2011

16.2 Slovakia Coordinates R&D

On April13th, the European Program for the Danube Region countries endorsed the strategy proposed by the European Commission for this region. Among the 11 priority areas, Slovakia will coordinate "research, development, education and ICT" with Serbia, and "restoration and maintenance of water quality" with Hungary. Regarding these two points, the Commission set the target of investing 3% of GDP in R&D by 2020, as well as reducing the quantity of nutrients to restore the ecosystems of the Black Sea to the 1960 level by 2020.

This plan proposes 200 priority actions to improve economic and environmental conditions in the region. It involves 14 countries, including 8 member states (Austria, Hungary, Czech Republic, Slovakia, Slovenia, Bulgaria and Romania) and 6 non-member countries (Croatia, Serbia, Bosnia-Herzegovina, Montenegro, Ukraine and Moldova).

Four main objectives motivate the program in the Danube Region:

- Open up the Region – improve mobility, support for sustainable energy, and develop culture and tourism;
- Protecting the environment – reclaim the water quality, environmental risk management and biodiversity conservation;
- Developing prosperity – improve research capacity, education and information technology, help the competitiveness of enterprises, and investment in skills;
- Strengthen the region – increase institutional capacity by enhancing cooperation in the fight against organized crime.

These objectives have been dispatched in 11 priority areas, each coordinated by two countries.

This program does not provide additional funding for the region, but aims to establish specific strategies for each priority area. Each coordinator will announce its strategy next June.
Sources: April/May 2011
Electronic Bulletin, May 24, 2011
Description de la stratégie pour le développement de la région du Danube (EN) :
http://ec.europa.eu/regional_policy/cooperation/danube/index_en.htm

17 Spain

17.1 R&D Funding in Spain: More Loans, Fewer Subsidies

The so-called Science Law has, since 1986, framed the research policy of the Spanish government. Spanish scientific priorities are well defined and translated into action by successive four-year plans. The Sixth Plan, National Plan of Scientific Research, Development, and Technological Innovation, covers the years 2008-2011.

On 13 January, the Ministry of Science and Innovation (MICINN) published the 2011 Work Program [1], the document that plans R&D and innovation financing for the last year of the current plan. This document describes the aid that will be granted and precise timetables for each of calls for applications to be launched. It is therefore a valuable working guide for all Spanish researchers, both public and private.

The VI plan is divided into six lines of action (plus a separate line for science), each of them funded by one or more programs (13 total) and 5 strategic actions, including 3 in 2011.

The 6 +1 lines of action are:
- Human Resources (777 million Euros in 2011 with a 50 grant/50 loan)
- Joint R&D and innovation (2.4 billions, 23/77)
- Institutional strengthening (40 million, 100/0)
- Scientific and technological infrastructure (674 million, 2/98)
- Use of knowledge and technology transfer (50 million, 12/88)
- Articulation and internationalization of the system (1.1 billion, 17/83)
- Program of scientific culture and innovation (4 million, 100/0)

Total funding in 2011: 5.0 billion Euros (23/77)

The 3 Strategic Actions financed in 2011 are:
- Health (161 million, 60/40)
- Energy and climate change (65 million, 20/80)
- ICT - Plan Avanza (381 million, 17/83)

Total funding in 2011: 607 million Euros (25/75)

The MICINN finance 97.7% of the action lines and 37.3% of strategic actions which are also supported by the MITYC (Ministerio de Industria, Turismo y Comercio).

If you look at the figures of the 2010 Work Program [2], we get:
Lines of action:
- Human Resources (533 million Euros in 2010 with 82 grant/18 loan)
- Joint R&D and innovation (1.6 billion, 38/62)
- Institutional strengthening (75 million, 0/100)
- Scientific and technological infrastructure (700 million, 2/98)
- Use of knowledge and technology transfer (48 million, 17/83)
- Articulation and internationalization of the system (957 million, 33/67)
- Program of scientific culture and innovation (4 million, 100/0)

Total funding in 2010: 3.9 billion Euros (36/64)

Strategic actions:
- Health (97 million, 100/0)
- Energy and climate change (60 million, 20/80)
- ICT - Plan Avanza (245 million, 29/71)

Total funding in 2010: EUR 402 million (45/55)

This shows that although the total budget in 2011 increases by 23% above 2010, the share of subsidies has fallen sharply in favor of cost sharing. Subsidies totaled 1.577 billion Euros in 2010 but accounted for

only 1.320 billion in 2011, a decrease of 16%.This is a blow to the research centers that do not work with loans.

The crisis in Spain is particularly difficult and has forced the government to unprecedented fiscal discipline, which explains the decrease in subsidies. Joan Guinovart, the chairman of the COSCE, the Confederation of Spanish Scientific Societies, the risk to Spanish science risk of such budgets is to lose the prestige which had cost so much to obtain and to lose scientific talent. He does not hesitate to speak about “R&D on the verge of collapse.” The purpose is certainly exaggerated and Mr. Garmendia, Minister in charge of the MICINN did not mention that the overall objective of the VIth plan will not be achieved, as it aimed to raise the share of Spanish GDP spent on R&D to 2.2% in 2011 whereas in 2009 (final figures published last November), the percentage was only 1.38%, barely above the previous year.

Sources: January 2011
Electronic Bulletin, January 24, 2011
- [1] "Programa de trabajo 2011", Spanish document available at:
http://www.micinn.es/stfls/MICINN/Innovacion/FICHEROS/Programa_de_Trabajo_2011_03-01-11.pdf
- [2] "Programa de trabajo 2010", Spanish document available at:
http://publicacionesopi.micinn.es/docs/PROGRAMA%20DE%20TRABAJO%202010.pdf

18 Sweden

18.1 Swedish and French Scientists Agree to Collaborate at the European Centre for Spallation (ESS)

On December 13, 2010, a delegation of sixteen scientists and senior French officials was received in Stockholm by Katarina Bjelke, General Director of Research Department at the Ministry of Education and research assistant to Peter Honeth, Secretary of State for Research and Pär Omling, Director General of the Swedish Research Council.

The ceremony marked the conclusion of a Franco-Swedish cooperation in the field of basic research and high technology, initiated at the informal Competitiveness Council in Umeå in October 2009, leading to an agreement for French participation in the ESS. The ESS will provide Europe with the world's most powerful neutron source, enhancing a unique ability to study inert and living matter at the atomic scale. It will be located on the campus of the University of Lund. Its opening is planned for autumn 2019.

French and Swedish teams will join forces around a number of scientific and innovative projects, such as:
- The development of a new technology accelerator for the ESS,
- R&D in neutron instrumentation at Laboratoire Léon-Brillouin (LLB)
- Climate research at the Laboratory of Climate Science and Environment (LSCE) through participation at the Swedish Atmospheric Center ICOS
- Close collaboration between SOLEIL Synchrotron Radiation Laboratory and MAXLab, allowing the development of new instruments and new scientific themes around SOLEIL and MAX IV, the new draft MAXLab Synchrotron, which will be operational on the campus of Lund,
- Cooperation in nuclear physics from the University of Uppsala and GANIL,
- Cooperation in the field of nuclear energy, with a section for student access to Swedish-French reactors training and demonstration, and a component of Research & Development for joint projects on research reactors in France .

The ceremony was complemented by the signing of an agreement [5] among the 16 partner countries Thursday, February 3, 2011 in Paris.
Sources: March 2011
- Electronic Bulletin, March 7, 2011
- [1] CEA: http://www.cea.fr
- [2] CNRS: http://www.cnrs.fr
- [3] Swedish Council for Research, Vetenskapsrådet: http://www.vr.se
- [4] Swedish Foundation for Strategic Research, SSF: http://www.stratresearch.se

- [5] Article published in newspaper Le Monde – Agreement between 16 countries signed in Paris: http://www.lemonde.fr/depeches/2011/02/03/source-de-neutrons-un-laboratoire-en-suede-pour-faire-de-l-europe-le-leader-mondial_3244_108_44321186.html
- ESS: http://ess-scandinavia.eu

18.2 Sweden Leads EU in Innovation

Following the adoption of the "Innovation Union" policy in October 2010, the European Innovation Scoreboard (TBEI) - a well established and recognized tool for assessing innovation among EU members - has been redesigned and renamed the Innovation Union Dashboard (TBUI).
While the EU continues to maintain a clear lead over the emerging economies of India and Russia, Brazil is making steady progress and China is rapidly catching up. The EU seems to be unable to close the gap in innovation with its main international competitors, namely the U.S. and Japan. Despite the economic crisis, the trend is promising in most EU members states, although progress is not fast enough.

Within the EU, Sweden has the best results, followed by Denmark, Finland and Germany. The United Kingdom, Belgium, Austria, Ireland, Luxembourg, France, Cyprus, Slovenia and Estonia, in that order, are the next group. These are some of the key findings of the 2010 Innovation Union Dashboard (TBUI) issued on February 1st, 2011 by the European Commission.
Sources: March 2011
- Electronic Bulletin, March 7, 2011
- Full report available at: http://ec.europa.eu/enterprise/policies/innovation/facts-figures-analysis/index_en.htm
- Additional information available at: http://www.proinno-europe.eu/metrics.
- Union of Innovation: http://ec.europa.eu/research/innovation-union/index_en.cfm
- Europe 2020: http://ec.europa.eu/europe2020/index_en.htm

18.3 Swedish Polar Research

Policies for Swedish Polar Research are set jointly by the secretariat for the Swedish Polar Research (Polarforskningssekretariatet) and the Swedish Agency for Research (Vetenskapsrådet). In this regard, they have established a roadmap for shared funding of polar research projects outside of Sweden. Within the programs SWEDARCTIC (Swedish Research in the Arctic) and SWEDARP (Swedish Antarctic Research) projects are designated as the basis for long-term collaboration with national and international agencies and Swedish scientists. The goal is to inform potential partners about polar research projects.

The call for projects was launched in April 2010 for logistical support of research in the Arctic and Antarctic in all scientific fields. Of the 27 candidates, 3 were described as outstanding (world class) and 10 excellent (leading nationwide). Other calls for proposals will be subsequently published in order to allow scientists to integrate existing expeditions or to participate in programs of bilateral or multilateral agreements.
Sources: March 2011
- Electronic Bulletin, March 7, 2011
- http://www.vr.se
- http://www.polar.se

18.4 New Roadmap for European Infrastructures - Sweden

The new roadmap for European research infrastructures (ESFRI strategy report and roadmap) is now finished, following intensive work by ESFRI — a European collaborative organization for research infrastructure matters. The roadmap comprises numerous valuable high-priority commitments to research infrastructures.
Sources: April/May 2011
Full article available at:
http://www.vr.se/inenglish/fromus/news/newsarchive/news2011/news2011/newroadmapforeuropeaninfrastructurespresented.5.6aefc04212fe6ac1adb800014.html

19 Switzerland

19.1 Switzerland Leads the European Scoreboard for Innovation in 2010

Switzerland continues to lead the European Scoreboard for Innovation (EIS) in 2010, renamed for the occasion the Union Innovation Scoreboard (TBUI) [1]. For the third consecutive year, Switzerland is the most innovative European country, ahead of Sweden and followed by Denmark (3), Finland (-1), Germany (-1), the United Kingdom (-1), with France ranked twelfth (-1). The supply of venture capital was still particularly rich with a growth rate of 20.7%. Intellectual property is again listed as an area of excellence, with a dramatic increase in trademark registrations (+19.4% to 187 trademarks).

Sources: April/May 2011
Electronic Bulletin, April 6, 2011
[1] Scoreboard European Innovation 2010, February 1, 2011

19.2 SNSF Annual Report 2010: 17% rise in research projects (Switzerland)

In 2010, researchers submitted substantially more projects to the Swiss National Science Foundation (SNSF) than in previous years. A steep increase of 17% compared to 2009 means that competition for research funding has become very intense. With overall funding of 726 million Swiss francs, the SNSF supported more projects than ever before (+2.7 % compared to the previous year).

For several years now, the SNSF has been confronted with increasing demand for research funding. Since 2007, the number of submitted applications in project funding, the SNSF's main funding scheme, has risen by an average of 10%. The figures published in last year's Annual Report show that the growth curve is indeed becoming steeper, with a dramatic increase recorded in 2010: the number of submitted applications rose by 17% to 2,784 applications, in which an overall amount of 1.1 billion Swiss francs was requested. A rise in the number of applications has also been noted in the area of career funding.

Source: June/July 2011
Ordering a copy
You may order the Annual Report 2010 in German, French and English as well as all other SNSF publications free of charge at: www.snsf.ch > About us > Publications of the SNSF

20 United Kingdom

20.1 Britain hosts 'innovation summit' with EU Nordic states (United Kingdom)

Prime ministers from nine northern European countries are meeting in London today (January 20, 2011) as part of a British initiative to find ways to boost growth and innovation in green technologies such as offshore wind.

Source: January 2011
Full article available at:
http://www.euractiv.com/en/innovation/britain-hosts-innovation-summit-eu-nordic-states-news-501429?utm_source=EurActiv+Newsletter&utm_campaign=f6e62bea0f-my_google_analytics_key&utm_medium=email

20.2 UK Opens New Centers for Advanced Engineering Training

The Secretary of State for Science and Universities, David Willets, opened five new training centers that will award Engineering Doctorial degrees (PhDs in Engineering). This four-year degree, already widely recognized, prepares researchers who intend to pursue industrial careers. Students will conduct research in partnership with the industry where a significant part of their training will take place. They have the opportunity to develop their skills in economics and business administration, while receiving high-level instruction on innovative technologies used in industrial production.

Each center, located at universities with a strong culture of partnership with the industry, will host six to ten students per year. The Centers will be funded by EPSRC (Engineering and Physical Sciences Research Council) up to £ 1.25 million per center, by the host universities, and private companies, which will provide more than half of the funding. Among the industrial partners are Jaguar and Land Rover, Airbus, Boeing, Rolls-Royce. These new Centers are in addition to the 19 Industrial Doctorate Centers already supported by the EPSRC.

The topics studied in the five new centers and their host universities include:
- Improving the performance of rapid manufacturing technologies (Universities of Nottingham, Birmingham and Loughborough);
- Reducing waste in metal industries(University of Strathclyde);
- Developing new technologies for machine tools to save time and money (University of Sheffield);
- Industrial production with high added value/ low environmental impact (University of Warwick);
- Implementation of new techniques to improve manufacturing processes (University of Swansea).

For the Secretary of State for Science and Universities, these five research centers will support British economic growth by training highly qualified staff whose skills are needed by such UK industries as automotive and aeronautics.
Sources: March 2011
- Electronic Bulletin, March 16, 2011
- News EPSRC, 13/01/11, http://redirectix.bulletins-electroniques.com/Q2ZVA
- Science Business, 13/01/11, http://bulletin.sciencebusiness.net/NewsArticle.aspx?ArticleId=74670

20.3 Indo-British Cooperation in Science and Technology

India is a rising power not only from an economic and political point of view but also from a scientific perspective, which led the European Commission to regard it as a strategic nation. Following the signing of the Indo-European Science and Technology agreement in November 2001, several summits to promote scientific and technological cooperation have been held and a joint action plan has been established in order to create common infrastructures and financing systems for collaboration programs.

Despite these efforts and the dynamic and fruitful scientific cooperation already existing between India and, in particular, France, Germany and the United Kingdom, cooperation is not yet harmonized at the European level. Thus, a consortium called New INDIGO, composed of 23 Indian and European scientific and technological organizations, has been created in order to overcome this failure and to strengthen the international dimension of the European research by providing a platform for cross-linking between the different actors involved.

India's International Scientific Position

In the next five years, the budget allocated to science by the Indian government is expected to triple compared to 2006 (it was the equivalent of 4.86 billion Euros in 2010). This budget will reach 2% of GDP, and the number of Indian Institutes of Technology (IIT) will double. India is a nuclear power and has its own space exploration program: it has recently successfully launched its first lunar probe and its first nuclear submarine. In addition, we are witnessing the emergence of world-renowned research fields such as life sciences, agriculture, and information and communication. Indian scientific and technological research is undergoing a major expansion. Between 2000 and 2008, India recorded an increase of 80% of scientific publications and currently produces the equivalent of 2.75% of the world production, across a range of disciplines.

Cooperation History

Cooperation between the United Kingdom and India in science and technology is historic and can be traced back to the last century. A few years after India’s independence in 1947, a network of IIT has emerged. The first to be developed was Kharagpur in 1950. The IIT are autonomous engineering and technology institutes established by the Indian government to train scientists and engineers in order to have skilled workforce able to support economic and social development. Some of the IIT were

established with foreign financial and technical assistance: the IIT in Delhi has been supported by the United Kingdom.

The UK network for global Science and Innovation funded equally by the Foreign and Commonwealth Office (FCO) and the Business, Innovation and Skills (BIS), established their first office in New Delhi 10 years ago. Since 2006 the Science and Innovation Council supports meeting between Indian and British ministers. The first meeting took place in 2006, followed by a second in 2010 and from 2010 on, it is expected that these meetings will take place every other years. Following the last meeting in 2010, there was an increase in trade between the United Kingdom and India.

Objectives of Collaboration

By establishing a cooperation network in India, the objectives of BIS and FCO were to promote international collaborations, to have an impact by giving Indian companies access to UK research and vice versa, to collaborate in some areas but also to influence India in others. Therefore, the objectives of the Science and Innovation Network are:

- Research - maintain the reputation and international position of the United Kingdom by securing access to the Indian scientific scene;
- Innovation - improving the innovative capacity of the United Kingdom by securing access to the best science, engineering and technology in India and ensuring that the UK is a partner of choice for the overall operation and marketing of Indian intellectual property;
- Development - to ensure maximum support to the political development of British science and innovation, and cooperation with India;
- Policy research and innovation - to inform British and international research policy and innovation through interaction with Indian political leaders;
- Strategy - to inform the United Kingdom and India on policy development and implementation in strategic areas related to research and innovation.

Actions taken

To promote and facilitate collaborations in research and development between universities, research institutes, and Indian and British companies, the Science and Technology Network uses interactive platforms such as seminars, workshops, conferences, and sponsor visits and exchanges of researchers between India and the UK. For the British organizations, governmental and others to discover India, the Science and Technology Network provides all kinds of information, analysis and reporting (e.g. fuel cells, semiconductors, the ecosystem of the R&D in India ...).

Priorities in terms of research and innovation

The current British scientific and technological priorities to spur collaborations with India are:

- Low carbon energy sources - innovation in solar and nuclear energy;
- Food production - innovative responses to the threats posed by climate change;
- Technology related to water - impact of climate change on water resources and response to water scarcity;
- Innovative medicine - development of new drugs and clinical trials;
- Global security - research on the threat posed by Internet attacks and solutions for cyber security;
- Global economy - economic research and innovation policy for economic recovery.

Exchanges of researchers and students

No statistics appear to be available at the moment. Exchanges of researchers are not very numerous and it is difficult to quantify the students' exchange. However, the asymmetry of exchange should be noted: tens of thousands of Indian students are in the United Kingdom against hundreds of British students in India.

Establishment of campuses in India

Unlike what happens in China, where the University of Nottingham, for example, established the Ningbo campus, no British university has established campuses in India. It seems that at a legal standpoint, this

is not an easy step. India has not fully disengaged itself from the structural weight and mood of post-colonial past.

Other British institutions represented in India

DFID (Department For International Development)

DFID has recently opened a research office in New Delhi. It supports over the years more than 70 projects, whose details can be found at the following address:
http://projects.dfid.gov.uk/Default.aspx?countrySelect=IN-India

The thematic priorities of DFID action are the goals of Millennium Development (eradicate extreme poverty and hunger, making primary education universal, promoting gender equality, reducing child mortality, improve mothers' health, combat HIV, AIDS and malaria, ensure environmental sustainability, develop a global partnership for development).

The RCUK (Research Council UK)

The parent body of all UK Research Councils (RCUK) opened an office in New Delhi in October 2008. Its purpose is to bring a change in terms of research partnerships between the best British and Indian researchers in the two countries and to facilitate high-quality partnerships, enabling research with a strong economic and societal impact.

The British Council

The British Council's role is to position the UK as a leading provider in educational and cultural areas. This is achieved by promoting the English language while establishing relationships around the world. The British Council is very well established in India and has celebrated the 50th anniversary of its library network in 2000. Activities include arts, climate change, education, learning and teaching of English, and £library and information services. The British Council is located in Chandigarh, Delhi, Ahmedabad, Kolkata, Mumbai, Pune, Hyderabad, Bangalore and Chennai.

Financial Aid

All the projects jointly funded by the United Kingdom (including the BIS via the research councils) and India's science and technology, now achieved £70 million. India increasing its loans granted to science and technology, it is becoming difficult for the United Kingdom to contribute up to 50%. Some research projects are also funded by private companies. Projects are generally funded for a period of 3 to 4 years. Some examples of projects funded:

- Next Generation Networks: £9 million. The UK and India have pledged to fund £2.5 million each, plus £4 million from Indian business partners. The goal is to use the networks of modern telecommunications and multimedia services to improve health and climate forecasting systems in rural areas.

- Bridging urban/rural divide: £12 million. The UK and India are committed to fund this project to the tune of £6 million each in order to generate energy from outside the network and use digital technologies for key services such as health, to improve life in rural India and the United Kingdom.

- Solar energy: £10 million. The United Kingdom and India respectively are committed to fund £5 million each.

- Atomic energy: £10 million. The UK and India have pledged to fund £5 million each.

- UKIERI: UK-India Education Research Initiative supports 6 research projects (up to£ 500,000 million each), 67 research grants (up to £150,000 million each), 30 DST-UKIERI grants (up to 1£50,000 million each), 20 PhD grants and 43 research fellowships. The UKIERI works in partnership with the BIS, the FCO, British Council, the National Assembly for Wales, and the Ministry of Human Resource Development, Government of India.

Current funding opportunities for collaborations between India and the United Kingdom are:
Opportunities offered by the Research Councils - Three Bridges Science, initiatives implemented by the RCUK to forge collaborations between UK universities and institutions in China, India and the United States, are specific to India:

- Bioenergy: £3 million - project funded by the RCUK and the Indian Ministry of Science and Technology, allowing collaboration between Aston University and IIT Delhi;

- Biopharm: £1.5 million - project funded by the RCUK and the Indian Ministry of Science and Technology, allowing collaboration between the University of Nottingham, IIT Kanpur and Indian Institute of Management, Bangalore. Objective: Collaborative innovation in discovery and development of new drugs;

- Agricultural initiative proposed jointly awarded £1.5 million to the University of Leeds, the Indian Agricultural Research Institute and Indian Institute of Science, Bangalore, for a period of four years. Objective: To develop and exploit advances in biotechnology applied in the context of agriculture.

Various research councils have also implemented a set of initiatives on improving food security in developing countries, establishing research networks, and establishing a scholarship program for the development of careers in biostatistics or opportunities for funding joint British and Indian researchers.

Other sources of opportunities - British Academy-Newton International Fellowships
Jointly funded by the British Academy and the Royal Society, these fellowships are intended to attract the UK's best post-doctoral researchers in the world. These awards consist of an annual living allowance of £24,000, combined to£ 8,000 per year for research expenses (equipment, consumables, domestic travel and international) and up to £2,000 for relocation expenses. Overhead with a value of 50% of the total amount awarded to the fellow is added, for a total value of the allowance of up to £51,000 for the first year.

Royal Society - Opportunities for international collaborations
Note also the Indo-British program of scientific seminars. The purpose of this new program is to fund the organization of scientific meetings lasting three days to allow British and Indian researchers to meet together promoting collaboration and knowledge transfer between the two countries. These meetings take place in India or the United Kingdom and the beneficiaries are fully responsible for all aspects of organizing these meetings.

Alliance Program between India and the United Kingdom for research careers in the biomedical field managed by the Wellcome Trust (private foundation) and the Indian Ministry of biotechnology.
Sources: April/May 2011
- Electronic Bulletin May 9, 2011
- FCO, SIN India, http://ukinindia.fco.gov.uk/en/about-us/working-with-india/KnowledgeEconomy/science-innovation-network
- Prospectus de coopération en science et technologie, SIN India, http://ukinindia.fco.gov.uk/resources/en/pdf/SIN/2010/UKSINProspectus
- DFID, UK Department for the International Development, http://www.dfid.gov.uk/
- RCUK, http://www.rcuk.ac.uk/Pages/Home.aspx
- British Council, http://www.britishcouncil.org/india.htm
- Newton Fellowships, http://www.newtonfellowships.org/
- Royal Society, http://royalsociety.org/india/

20.4 Engineering team heads to Antarctica to explore hidden lake (October 11, 2011) (UK)
Next week a British engineering team heads off to Antarctica for the first stage of an ambitious scientific mission to collect water and sediment samples from a lake buried beneath three kilometers of solid ice.
Source: October 2011

Full article available at:
http://www.nerc.ac.uk/press/releases/2011/24-ellsworth.asp

20.5 EPSRC commits over £3.5 million of support for collaborative computational projects (UK)

Collaborative Computational Projects (CCPs) aim to bring particular research communities together and help them develop computational tools and techniques to support their research through large-scale software development projects, maintenance, distribution, training and user support.
Date: 21 October 2011
Source: October 2011
Full article available at:
http://www.epsrc.ac.uk/newsevents/news/2011/Pages/ccps.aspx

Translation for these articles was provided by Carine Polliotti. If you would like additional information or background, please feel free to contact Carine at cpolliot@nsf.gov